

#### **Sounding Rocket Flight Data Summary 1966-1976**

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15 May 1978



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AEROSPACE INSTRUMENTATION DIVISION PROJECT 7659
AIR FORCE GEOPHYSICS LABORATORY V

HANSCOM AFB, MASSACHUSETTS 01731

AIR FORCE SYSTEMS COMMAND, USAF



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This technical report has been reviewed and is approved for publication.

FOR THE COMMANDER

Chief Scientist

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Unclassified SECURITY CLASS'FIGATION OF THIS PAGE (When Date Entered) READ INSTRUCTIONS REPORT DOCUMENTATION PAGE BEFORE COMPLETING FORM PECIPIENT'S CATALOG NUMBER 2. GOVT ACCESSION NO. 3 AFGL-TR-78-0120 TIFE OF REPORT & PERIOD COVERED SOUNDING ROCKET FLIGHT DATA SUMMARY, Scientific. Interim. PERFORMING ORG. REPORT NUMBER Special Reports, No. 213 B. CONTRACT OR GRANT NUMBER(#) C. Nealon Stark Alan K. Williams, PERFORMING ORGANIZATION NAME AND ADDRESS Air Force Geophysics Laboratory (LCR) 62101F Hanscom AFB, 76590400 Massachusetts 01731 11. CONTROLLING OFFICE NAME AND ADDRESS REPORT DAT Air Force Geophysics Laboratory (LCR) 15 May 1978 Hanscom AFB, 61 Massachusetts 01731 AGENCY NAME & ADDRESS(If different from Controlling Office) 15. SECURITY CLASS. (of this report) Unclassified reptsin 15. DECLASSIFICATION/DOWNGRADING Approved for public release; distribution unlimited. TR-78-04 20,4 FGL-5R-243 19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Sounding rockets Laur.ch summary Vehicle performance STRACT (Continue on reverse side if necessary and identify by block number) This report is a summary listing of all AFGL sounding rockets launched from 1966 to 1976. Listed data includes the launch time, date, place, and number; the type of rocket launched; the name of the project scientist; the impact time, range, azimuth, apogee time, and altitude; payload weight and length; the recovery, ACS type, and performance; experiments flown; support systems; remarks; and total vehicle performance.

409 578

Unclassified

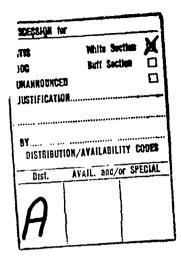
SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

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#### Sounding Rocket Flight Data Summary 1966—1976

#### 1. INTRODUCTION

Sounding rockets have become the standard workhorse for carrying scientific experiments to the upper atmosphere and beyond for exploration and investigation.

Our first sounding rocket was a German V-2, launched from the White Sands Missile Range on 22 August 1946. Thirty years have passed and the need for sounding rockets still continues.

This report is a summary of the sounding rockets flown by the Air Force Geophysics Laboratory from 1966 through 1976.

Those flown before this period are listed in <u>Summary of AFCRL Rocket and Satellite Experiments (1946-1966)</u>, McIntyre, A., AFCRL-66-868, Special Reports, No. 54, December 1966.

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(Received for publication 10 May 1978)

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	: <b>-                                   </b>	NUMBER PATE	TYPE	AC15.732	Astrobee 200	AC15, 733 \ 28 Jan	As 158ber	AES::502:	Wike/ Javelin 0105	AFS.504	Nike/ Javelin	AFS. 505	Nike/ Javelin	AFS. 508	Nike/ Javelin	FF7.32	KIRO)	AF3:524	Acrobee
10 6 51 1		LINE	Š						3.	; * <b>*</b>			Ġ.		0	#C 00		7+ 1 = 2 2 3	

Use Letter to Show Performance: S.- Succass, P.- Partial Success, F.- Failure, N.- None Used.

2. List Type of Recovery and Type or Brand of ACS.

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	ee 0349	•	. 1	.8	322	160		115	,				
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Javelin	1n 10630	-	903	422	901	210				לפו רובים מפונונים		<u>.</u>	
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11. Kike. Casun	Jun 0025	-	-			217		29		-			
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NIRO	0236		19-		1292	140		105			-		
AF7.620		25 Jun APGC	- •	29	. 091	130		157		No		No. Track	v
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N180	0030	•	1		-	1	  -  -	83		-		Small Coning	- <u>-</u>
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PALOE         PRED.         PRED.         PRED.         (MST)         RECOVATION         EXPERIMENTS         SUPPORT SYSTEMS         REMARKS           SCIENTIST         ACT.		<b>—</b>	1966		TIME (SEC)	IMPACT RANGE (KM)	AZ (DEG)	ALT TIN	GEE TIME (SEC)	PAY.		AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
Type   Type	LINE		DATE (UT)		PRED.	PRED.	PRED.	PRED.	PRED.		RECOY.				
	Š		TIME (CT)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	_	ACS1.2		SUPPORT SYSTEMS	REMARKS	PERF.
AR3.252         2. Jul MSMR         -	1		28 Jun	WOPS	ı	996	66	547	1	ı	1	Ret Potential	Nose Cone Release		S
AF3.525   22 Jul   ASNR   -			1723			3	,	546							
ACCUSEDE         113         356         247         -         -         RPA         Countries         Countries <td>Ĕ</td> <td></td> <td>22 Jul</td> <td>WSMR</td> <td>,</td> <td></td> <td>360</td> <td>243</td> <td>ı</td> <td>189</td> <td></td> <td>Extreme Ultra-</td> <td>Ball Pointing</td> <td></td> <td>s</td>	Ĕ		22 Jul	WSMR	,		360	243	ı	189		Extreme Ultra-	Ball Pointing		s
AE7.34         8 Aug         CRR         1278         80         160         134         -         347         -         Emitsion Packs         Recovery         Recovery         Failure           Aerobee         1820         -         580         68         167         118         -         225         -         Spectrograph         Accovery         Accovery         Recovery Failure           Ac3.364         11 Aug         CRR         470         171         105         186         -         225         -         Spectrograph         Recovery         Recovery         Recovery Failure           Ac17.6040         28 Sep         178         171         105         186         -         133         -         186         -         133         -         186         -         -         190 of 11 Sensors         Recovery         R	:		2012	ı		<u> </u>	356	247		Ι.		RPA SOUTE SO	5000		
Actobee 1820         1820         -         580         68         167         118         -         131         -         3 Axis         4 Door Mose         Recovery Failure           AC3.364         11 Aug CRR         476         161         110         210         -         225         -         Spectrograph Photometer		AE3.734	8 Aúg	CRR	1278		_	134	ı	347	_		Recovery	Low Performance	,
AC3.364         11 Aug         CRR         476         161         110         210         -         225         -         Spectrograph Photometer Photometer         Recovery         Recovery         Mater Impact - Photometer Photometer         According 28 Sep         177         105         186         -         133         -         133         -         133         -         134         -         135         -         134         -         135         -         136         -         136         -         136         -         -         -         100         135         -         -         100         135         -	<u>-</u>	Aerobee 150 .	1820	•	580			118	,	131			Jespin 4 Door Nose	Recovery Fallure	,
Actobee         1732         -         470         171         105         186         -         497         -         Disturbed long plere         Aspect         B. Arcas Failed long block aspect on the control of the c		AC3.364	11 Aug	CRR	476			210		225		Spectrograph	Recovery		s
ACI7.604D         28 Sep         CRR         .         -         114         -         497         -         Disturbed Black Black         Aspect         Aspect         B. Arcas Failed I.6 db Absorption           Black Blant         1816         -	₹	Aerobee 150	1732		470			186		133		in an amount		oo vetrieval	
Black Black         1816         -         -         -         -         10 of 11 Sensors         11.6 db Absorption           AF7.348         10 Oct         APGC         -         58         160         183         -         86         -         Expandable Sphere         Linited Data           AF7.349         10 Oct         APGC         -         58         160         185         -         84         -         Expandable Sphere         Vehicle Failure           AIRO         1720         -         58         160         185         -         84         -         Expandable Sphere         Vehicle Failure           AE7.813         14 Oct         APGC         48         -	;	AC17.6040	28 Sep	CRR		,		114	,	497	,	Disturbed	Aspect	B. Arcas Failed	v
AF7.348         10 Oct         APGC         -         58         160         183         -         86         -         Expandable Sphere         Limited Data Limited Data Limited Data Limited Data SIR           AF7.349         10 Oct         APGC         -         58         160         185         -         84         -         Expandable Sphere         Coupled 9.7 Sec           AIRO         1720         -         58         48         -         -         -         -         -         Coupled 9.7 Sec           AE7.813         14 Oct         APGC         403         121         165         153         -         95         -         VLF Balloon         Balloon Ejection           AIRO         1720         -         577         98         160         138         -         66         -         ALF Balloon         Balloon Ejection	5	Black Brant	1816	•	332			116		*	-	lonosphere 10 of 11 Sensors		1.6 db Absorption	3
AF7.349         10 Oct         APGC         -         5R         160         185         -         84         -         Expandable Sphere         Limited Data           AF7.349         10 Oct         APGC         -         5R         160         185         -         84         -         Expandable Sphere         Coupled © 27 Sec           AF7.349         1720         -         330         251         8         48         -         -         -         -         Coupled © 27 Sec           AF7.813         14 Oct         APGC         403         121         165         153         -         95         -         VLF Balloon         Balloon Ejection           AIRO         1720         -         577         98         160         138         -         66         -         -         ALF Balloon         Balloon Ejection	,	AF7.348	10 Oct	APGC		-		183	,	98	•	Expandable Sphere		Low Performance	,
AF7.349         10 Oct         APGC         -         58         160         185         -         84         -         Expandable Sphere         Yehicle Failure           MIRO         1720         -         330         251         8         48         -         -         -         -         Coupled @ 27 Sec           AF7.813         14 Oct         APGC         403         121         165         153         -         95         -         VLF Balloon         Balloon Ejection           NIRO         1720         -         577         98         160         138         -         66         -	:	*TRO	1657	•	463	62		179		,	,			Limited Data	·
MIRO         1720         -         330         251         8         48         -         -         -         -         -         Loubled v. 27 Sec           AE7.813         14 Oct         APGC         403         121         165         153         -         95         -         VLF Balloon         Balloon Ejection           MIRO         1720         -         577         98         160         138         -         66         -	~	AF7.349	10 Oct	APGC	,			185		84		Expandable Sphere		Vehicle Failure	
AE7.813         14 Oct         APGC         403         121         165         153         -         95         -         VLF Balloon         Balloon Ejection           NIRO         1720         -         577         98         160         138         -         66         -		NJRO	1720	•		251	8	48		•				oac /2 a paidnon	
NIRO 1720 - 577 98 160 138 - 66	28	AE7.813	14 Oct	APGC				153	,	95	,	VLF Balloon	Balloon Ejection		S
		NIRO	1720	•	577			138		99					

2. List Type of Recovery and Type or Brand of ACS.

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	-i	1966		TIME	RANGE	AZ,	₹:	TIME	PAY.					
LINE	NUMBER	DATE (UT)	PLACE	1	PRED.			PRED.	WT.	RECOV.	L			
Š.	TYPE	TIME (UT)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	Ş.C	ACS1.2	EXPERIMENTS	SUPPORT SYSTEMS	REMARKS	PERF.
	_	30 Oct	APGC	362	48	160	88		87	·	Optics			2
32	Vike Cajun	1406		310	43	154	8	1	7.2		•			•
26	AF3.267	16 Nov	MSMR	938	80	360	173		318	'	Meteoric Dust	Gyro	Meteor, bust	
}	Aerobee 150	1315	•	935	06	359	173		139		Rocket Vibrations	Recovery	Failure Trapped Gas in Above	
27	AG3.357	27 Nov	CRR	1130	64	165	17.1		266		Lunar 1R	Lunar Pointer		<u>ر</u>
	Aerobee 150	0216	*	1070	137	137	169	•	143	•		Kecovery		,
28	AE3.724	6 Dec	WSWR	1000	97	355	198		260		IR Horizon	ACS	Hard Landing	,
	Aerobee 150	0335	-	850	-		188		Ē			xecovery		· 
5	AF3.615	14 Dec	CRR	06*	101	, <u>o</u> r	061		252	,	Many			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
3	Aerobee 150	9180	144	446	114	115	117		113	•	Delay - 502			·
۶	AC15.735	14 Dec	CRR	125	152	118	246		237		Many Cosmic			\ \ \
	Astrobee 200	0816	1	490	248	107	2112	-	116		**************************************			
														<u> </u>
									To design the last of the last					
<b>5</b> •	1. Use Letter to Show Performance: P - Partial Success, F - Failure, N	now Perfor	mance: S - Su silure, N - Nor	S - Success, - None Used.		2. Lin T	ype of R	ecovery a	and Type	2. List Type of Recovery and Type or Brand of ACS.	of ACS.			

19£7  NUMBER (UT)  TYPE (UT)  AT7.500 11 Jan (UT)  NIKO 2231  AF7.654 16 Jan (UT)  NIRO 2200  AF7.653 16 Jan (UT)  NIRO 2200  AF7.653 16 Jan (UT)  AF7.653 16 Jan (UT)  AF7.653 16 Jan (UT)  AF7.653 16 Jan (UT)  AF7.653 19 Jan (UT)  AF7.655 19 Jan (UT)	PLACE SCIENTIST APGC - APGC	(SEC)			Č							
ER DOATE  CUTJ  TIME  UUTJ  2231  2231  16 Jan J  16 Jan J  17 Jan J  17 Jan J  19 Jan A  19 Jan A	PLACE SCIENTIST APG:	١	RANGE (KM)	AZ (DEG)	ALT TIN	TIME (SEC)	LOAD					
HYPE TIME AI7.500 11 Jan AIX. AIX.654 16 Jan AIX.654 16 Jan AIX.653 16 Jan AIX.653 16 Jan AIX.653 16 Jan AIX.653 16 Jan AIX.655 19 Jan AIX.65	APG.	$\overline{}$	PRED.	PRED.	-	PRED.	WT. (LBS)	RECQY.				
AF7.550 11 Jan NIKO 2231 AF7.654 16 Jan NIRO 1048 AF7.503 16 Jan NIRO 2248 AF7.653 16 Jan NIRO 2.500 A43.526 17 Jan Aero 150 1900 AF7.655 19 Jan VIRO 2322	APGC.	ACT.	ACT.	ACT.	ACT.	ACT.	$\overline{}$	ACS1,2	EXPERIMENTS	SUPPORT SYSTEMS	REMARKS	PERF.
AF7.654 16 Jan  NIRO 1048  AF7.503 16 Jan  NIRO 2248  AF7.653 16 Jan  NIRO 2.500  Ad3.526 17 Jan  Aero 150 1900  AF7.655 19 Jan  YIRU 2322	APGC	536	92	160	192		35		Chemical Release		No Second Stage	,
AF7.654 16 Jan  NIRO 1048  AF7.503 16 Jan  NIRO 2248  AF7.653 16 Jan  NIRO 2.500  Ad3.526 17 Jan  Aero 150 1900  AF7.655 19 Jan  YIRO 2322	APGC	125	1				159		Barium		Ignition	<b></b>
NIRO 1048  AF7.503 16 Jan  MIRO 2248  AF7.653 16 Jan  NIRO 2.000  AG3.526 17 Jan  Aero 150 1900  AF7.655 19 Jan  YIRO 2322		330	ន	091	212	,	711		Chemical Release		2nd Stage Ignition	
AF7.503 16 Jan HIRO 2248 AF7.653 16 Jan HIRO 2.300 A43.526 17 Jan Aero 150 1900 AF7.655 19 Jan HIRO 2322	•	378	911	172	217		95		Healed IMA		at 24 Sec	n
AF7.653 16 Jan NIRO 2.300 A43.426 17 Jan Aero 150 1900 AF7.655 19 Jan VIRO 2322	APGC		95	160	192		06		Chemical Release		21.5 Sec Delay	
AF7.653 16 Jan NIRD 2.300 AG3.526 17 Jan Aero 150 1900 AF7.655 19 Jan YIRO 2322	,	436	132	174	193		68	,	BA			'n
2500 17 Jan 19 Jan 2322	APGC		92	160	157		211	,	Chemical Release		22 Sec Delay	,
Ad3.526 17 Jan Aero 150 1900 AF7.655 19 Jan YIRO 2322	•	403	109	170	155		94		Heated 184			n
19 Jan 2322	HSMR	493	85	360	243		193	,	AMS		No Recovery	١,
19 Jan 2322	ŧ	200	89	359	243	,	86	4				n
2322	APGC	327	124	150	113		193		Chemical Release		23.5 Sec - 2nd	J
	•	329	127	165	107	,	211	,	Smoke turbulence		Stage Ignition	ń
A'7.656 19 Jan A	APGC		124	160	124		193	•		Martine de la companya del la companya de la compan	Inadvertent Firing	
N1R0 2322		,	-		,	,	930				No Second Stage	-
AF7.582 4 Mar A	APGC		1 26	160	195		88		Expandable Balloon	NY WORTHWATEN OF THE STREET	21 Sec Ignition	<sub>د</sub>
NIRO 2005		466	110	169	961	<u> </u>	87	,				,

Use Letter to Show Performance: S.-. Success, P.-. Partial Success, F.-. Failure, N.-. None Used.

Success, 2. List Type of Recovery and Type or Brand of ACS.

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	ř	1967		TIME	THANGET	AZ	ALT	Ŀ	¥ .					
	NUMBE	DATE	91 406	(SEC)	X X	(DEG)	(KM)	_		RECOV.				<b>,</b>
ΞŞ	ㅗ						_	יאבר.	$\neg$	ERY1,2	EXPERIMENTS	SLIPPORT SYSTEMS	BENVOKE	707
: 7	TYPE	£5	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	ΞĒ	ACS1,2		Serious storems	CACACACA	PER
6	AF7.583	6 Mar	APGC	•	80t	180	195	,	88		Expandable Ralloon		26 Sec Ignition	<u>~</u>
	NIRO	0205	•	440	122	184	175		87					•
- 2	AA7.168	12 Apr	APGC	355	87	180	<u></u>	ļ -	146		Hass Spect.			ľ
	N1R0	2301	•		62	175	144	,	9/		191			
=	AF7.385	12 Apr	APGC	356	68	180	138	,	132		Mass Spect.			ľ
	NIRO	2349		403	26	185	148		9/		lon irap	-		· 
	AF7.622	12 Apr	APGC	404	154	180	- - -		112	,	THA Trail	And the statement of th		ľ
y	NIRO	2356	4	403	180	180	167	. <del>-</del>	56	**				
	AF7,623	12 Apr	APGC-D3	26	Ē	270	691		=		TRA Trail		No Radar Track	\ \
2	NIRO	2357	NA MAI THE CONTRACT OF THE CON	николин к	Pomping the section of the section o		-	-	96	-				)
	AF6.561	13 Apr	APGC	352	52	179	601	<u> </u>	29		lon Trap			Ľ
-	Nfke/ Cajun	0622	ı	٠٦6	49	194	911	,			-			·
		13 Apr	APGC	515	146	361	283		176		Falling Sphere	Despin	LO Altitude on	ď
	Nike/ Tomahawk	2190	•	425	84	195	175	<u> </u>					Chem. Portion	
<u>'</u>	AF7.384	18 Apr	APGC	344	98	182	123		162		Mass Spect.	AND THE RESIDENCE AND THE PARTY OF THE PARTY	Good Sized Cone	~
_	NTRO	0260		375	89	120	135	-	92	PHIKLITHERING SPECIFICAL				
ŀ		***************************************	**************************************	The state of the s	A CONTRACTOR OF THE PERSON NAMED IN	- The state of the	-		•	•				

<sup>1.</sup> Use Letter to Show Performance: S.—Success, P.—Partial Success, F.—Failure, N.—None Used.

2. List Type of Recovery and Type or Brand of ACS.



	THE RESIDENCE OF THE PARTY OF T	-		· Avenue annue annue annue					AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	7
			IMPACT		APOGEE		PAY.				•	
1967		YIME (SEC)	NANGE (KM)	AZ (DEG)	AL KM)	(SEC)	LOAD					
DATE (UT)	PLACE		PRED.	PRED.	PRED.	PRED.	WT. (LBS)	επζρχ.	341137111111111111111111111111111111111	37933300 10000113	3/10/11/20	TOTAL
TIME (UT)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	_ ₹6	ACS1.2		SULTON STSTEMS	remanns.	PERF.
18 Apr	APGC	404	163	283	172		-15		IMA Landmeite Brobo		No Data TMA co Howfron	<b>-</b>
0925	Keenithkinde-fillipkoonithtingstiffing	252	C &	162	58		\$6	*				
18 Apr	APGC-D3	*0*	181	270	159	æ	901	£	TMA		No Second Stage	î-
0925		•					96	•				
18 Apr	APGC	344	\$6	182	122	•	291	•	Mass Spect.		Nike Roll High (XZ)	s
1021	•	378	69	172	138	•	76	1			No Cone	
18 Apr	APGC	404	921	180	170		117		Falling Sphere		Little Coning	s
1040	•	435	130	182	169		94	•				
19 Apr	APGC	496	127	380	292		195		Bartum Trafis			so
2340	*	497	132	180	261		240	, a.				
28 Apr	APGC	496	191		264		199	ğ	Bartum Trafis		2 of 3 Trails Good	s
2100	*	462	164	188	254		240	ī				
7 Jun	APGC	•	99	149	163		121		Metnoritic Dust	Hater Recovery	Net, Dust - OK	<u>.</u>
1320	,	609	25	155	154		100	•			Recovered	
28 Jun	SJOM	•	i				74	•	Plasma Struct.		17,700 FPS Re-	s
2032	- mikalininjaliningajinin	*	auth-incodeningua.			d differential de la constant de la	28	Ne carriera de la carriera del carriera de la carriera del carriera de la carriera del la carriera de la carriera dela carriera del la carriera de la carriera del la carriera de la carriera de la carri			16,000 (Act.)	
AF7.624 N1R0 AF7.625 N1R0 AF7.386 N1R0 AF7.560 N1R0 N1RC Tomahawk AF8.651 Tomahawk AF8.651 N1RC N1RC Tomahawk AF8.651 N1RC Tomahawk AF8.651 Omahawk AF8.651 Tomahawk AF8.651 Tomahawk AF8.651 Tomahawk AF8.651 Tomahawk AF8.651 Tomahawk	18 Apr 19 Apr 1021 1021 1040 19 Apr 19 Apr 2340 28 Apr 2012 2032	18 Apr 18 Apr 19 Apr 19 Apr 19 Apr 2340 2340 2340 2340 2340 28 Apr 2032	18 Apr APGC - 0925	18 Apr APGC 404 0925 - 251 18 Apr APGC 344 1021 - 378 1040 - 378 19 Apr APGC 404 19 Apr APGC 496 0012 - 495 2340 - 495 2340 - 495 2340 - 462 2340 - 1378 2340 - 2340 2340 - 2340 2340 - 2340 2340 - 2340 2340 - 2340 2340 - 2340 2340 - 2340 2340 - 2340 2340 - 2340 2340 - 2340 2340 - 2340	18 Apr. APGC 404 163 0925 - 251 47 18 Apr. APGC 344 95 19 Apr. APGC 404 126 19 Apr. APGC 404 126 19 Apr. APGC 404 126 19 Apr. APGC 496 127 2340 - 435 130 2340 - 462 161 0012 - 669 1320 - 669 57 88 Jun APGC - 66 1320 - 609 57 88 Jun APGC - 66	18 Apr.     APGC     404     163     183       0925     -     251     47     162       16 Apr.     APGC-D3     404     151     270       1021     -     -     -     -       1021     -     -     -     -       1040     -     378     69     172       19 Apr.     APGC     404     126     180       19 Apr.     APGC     496     127     180       2340     -     495     161     186       9012     -     462     164     188       9012     -     462     164     188       7 Jun     APGC     -     66     149       8 Jun     WOFS     -     -     -       1 G     - <t< td=""><td>18 Apr.         APGC         404         163         183         172           0925         -         251         47         162         58           18 Apr.         APGC         344         95         182         122           1021         -         -         -         -         -         -           1021         -         378         69         172         138           18 Apr.         APGC         404         126         180         170           19 Apr.         APGC         496         127         189         261           2340         -         435         132         180         261           2340         -         496         127         189         264           0012         -         497         132         180         261           7 Jun         APGC         496         164         188         254           7 Jun         APGC         -         -         66         149         163           7 Jun         APGC         -         -         66         189         254           8 Jun         APGC         -         -</td><td>18 Apr         APGC         404         163         183         172         -           0925         -         251         47         162         58         -           18 Apr         APGC         344         95         182         122         -           1021         -         -         -         -         -         -         -           1021         -         378         69         172         138         -           1040         -         378         69         170         -           19 Apr         APGC         404         126         180         170         -           19 Apr         APGC         496         157         180         261         -           2340         -         497         132         180         264         -           2340         -         462         164         188         254         -           3012         -         462         164         188         254         -           320         -         66         149         163         -         -           320         -         66         149</td></t<> <td>18 Apr.         APGC         404         163         183         172         -         115           09255         -         251         47         162         58         -         95           18 Apr.         APGC-D3         404         151         270         159         -         106           18 Apr.         APGC         344         95         172         -         -         96           1021         -         -         -         -         -         -         96           1021         -         378         69         172         -         -         96           1040         -         378         69         170         -         117           1940         -         435         130         182         169         -         195           1940         -         435         132         180         264         -         195           2340         -         462         164         188         254         -         193           3012         -         462         164         189         254         -         172           3010         &lt;</td> <td>18 Apr.         APGC         404         163         183         172         -         115         -           0925         -         251         47         162         58         -         95         -           18 Apr.         APGC-D3         404         151         270         159         -         106         -           1923         -         -         -         -         -         96         -           1021         -         -         -         -         -         96         -           1021         -         -         -         -         -         -         96         -           1021         -         -         -         -         -         -         96         -           1021         -         -         -         -         -         -         -         96         -           1040         -</td> <td>18 Apr         ApG         404         163         163         172         -         115         -         114A           0925         -         251         47         162         58         -         95         -         Langmair Probe           0925         -         27         159         -         106         -         104         -         104         -         104         -         104         -         104         -         104         -         104         -         104         -         104         -         104         -         104         -</td> <td>18 Apr. Apc. Apc. Apc. 163         183         172         - 115         - 14mgmair Probe         174         - 115         - 115         - 114mgmair Probe         174         175         - 115         - 14mgmair Probe         174         175         - 116         - 114         - 114mgmair Probe         174         - 115         - 116         - 114</td>	18 Apr.         APGC         404         163         183         172           0925         -         251         47         162         58           18 Apr.         APGC         344         95         182         122           1021         -         -         -         -         -         -           1021         -         378         69         172         138           18 Apr.         APGC         404         126         180         170           19 Apr.         APGC         496         127         189         261           2340         -         435         132         180         261           2340         -         496         127         189         264           0012         -         497         132         180         261           7 Jun         APGC         496         164         188         254           7 Jun         APGC         -         -         66         149         163           7 Jun         APGC         -         -         66         189         254           8 Jun         APGC         -         -	18 Apr         APGC         404         163         183         172         -           0925         -         251         47         162         58         -           18 Apr         APGC         344         95         182         122         -           1021         -         -         -         -         -         -         -           1021         -         378         69         172         138         -           1040         -         378         69         170         -           19 Apr         APGC         404         126         180         170         -           19 Apr         APGC         496         157         180         261         -           2340         -         497         132         180         264         -           2340         -         462         164         188         254         -           3012         -         462         164         188         254         -           320         -         66         149         163         -         -           320         -         66         149	18 Apr.         APGC         404         163         183         172         -         115           09255         -         251         47         162         58         -         95           18 Apr.         APGC-D3         404         151         270         159         -         106           18 Apr.         APGC         344         95         172         -         -         96           1021         -         -         -         -         -         -         96           1021         -         378         69         172         -         -         96           1040         -         378         69         170         -         117           1940         -         435         130         182         169         -         195           1940         -         435         132         180         264         -         195           2340         -         462         164         188         254         -         193           3012         -         462         164         189         254         -         172           3010         <	18 Apr.         APGC         404         163         183         172         -         115         -           0925         -         251         47         162         58         -         95         -           18 Apr.         APGC-D3         404         151         270         159         -         106         -           1923         -         -         -         -         -         96         -           1021         -         -         -         -         -         96         -           1021         -         -         -         -         -         -         96         -           1021         -         -         -         -         -         -         96         -           1021         -         -         -         -         -         -         -         96         -           1040         -	18 Apr         ApG         404         163         163         172         -         115         -         114A           0925         -         251         47         162         58         -         95         -         Langmair Probe           0925         -         27         159         -         106         -         104         -         104         -         104         -         104         -         104         -         104         -         104         -         104         -         104         -         104         -         104         -	18 Apr. Apc. Apc. Apc. 163         183         172         - 115         - 14mgmair Probe         174         - 115         - 115         - 114mgmair Probe         174         175         - 115         - 14mgmair Probe         174         175         - 116         - 114         - 114mgmair Probe         174         - 115         - 116         - 114

2. List Type of Recovery and Type or Brand of ACS.

				MOACT	ľ	OGAV	1	ſ		AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
1961			SEC	-	200	ALY TIME	(SEC)	PAÝ.					
NUMBER DATE FL	Ē	PLACE	PRED.		F	PRED.	PRED,	Ľ. BŠ	RECO'S.			OFWADEC	TOTAL
1	SCIE.	SCIENTIST	ACT.	ACT,	ACT.	ACT.	ACT.		AC81.2	LATERIMENTO	307708 1016 1016 1016 1016 1016 1016 1016 10	ecc man	PERF.
5 Jul CRR	CRR	the period and						175		Aurora, 1M	Aspect Solar-Mag	Radar Irouble Trat, from Mags.	s
1842	ļ							1.8	#				
8 Aug WSMR	XS.		·	87	٥	237	٠	196		AN3			۰,
		KORNIIIKKRIIIIKKRIII	With the property of the party	7.	386	ŝ	•	108					
15 Aug WSMR	_		538	8	25	240		ē		Cuv			s
- 1845	•	**************************************	729	103	350	243		100	•				
26 Aug APGC		٠	419	101	191	175		3	,	Density (Greestrablupa)		Payload Instru- mentation failure	٤.
0635	<u> </u>	**************************************	415	601	152	1.72		174	•	Instrumentation		Yehicle Good	
6 Sept. AndC		* -	338	7.4		121		184	•	Density Take Gareson		Experiment Failure Pitch-Roll Coupled	_
0200			318	63	184	101	*	215	*			During Burning	
2 Oct MOPS	ĝ	~	316		Ģ	901		105	-	Antenna			s.
Ca Jun 2000	*		*	ı	•	80.	•	\$	•	DIEGRADAD			
4 Oct MOPS	ş	S	486		165	266		183	•	BA Release (3)		Beacon Failure 9 30-40 Sec	~
19ke/ Towahawk 0020 -			*	ā	-	152	ę	3					
S Det NOPS	3	ž.	486		169	267		187	•	BA Release			s/s
KIKE/	<u>.                                    </u>		Ministration of the state of th	nimitin minimitin H		249	Throughtening Section 1						
1. Use Letter to Show Performance: S Success, P Partial Success, F Failure, N None Used	£2	ence: 8 5	ucress, re Used.		2. Lint 7	Ype of R	ROVERY !	nd Type	2. List Type of Recovery and Type or Brand of ACS.	of AGS.			



											AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
	•	100			MFAC		APOGEE	L L	PAY.					
	<b>⊣</b>	/96T		TIME (SEC)	HANGE (KM)	(DEG)	KE	(SEC)	LOAD					
Š	NUMBER	DATE (UT)	PLACE	PRED.		PRED.	PRED.	PRED.	WT. (LBS)	RECOY. ERY1.2	3218384163623	SM313X3 1000013	SAGVESG	TOTAL
Š.	TYPE	TIME (UT)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	S.E.	ACS1.2		SOLUCIONI STOLEMS		PERF.
	AG7.637	2% Oct	Puerto Rico	408	98	310	167	•	182	,	Spherical	GMD	Vehicle Coning	s
ж ——	NIRO	1814	1	407	80	313	180		11	,	Liectrostatic Analyzer			
<u> </u>	AG7.638	24 Oct	Puerto Rico	408	98	310	167	,	102	•	Spherical Electrostatic	GND	Vehicle Coning	,
8	NIRO	2400		402	28	318	180	,	77	ī	Analyzer			_
,	AG7.639	26 Oct	Puerto Raco	408	86	310	167	1	102	•	Spherical Flactostatic	ОмЭ	Coupled During Burning	Ŀ
3	NIRO	1809	1	,		-	92		77		Analyzer		Arithmatic error	
	AG7.640	27 Oct	Puerto Rico	408	86	310	167	•	102	•	Spherical Electrostatic	СМО		'n
8 	NIRO	1814	,	407	105	320	180	,	11	•	Analyzer			
	467.641	28 Oct	Puerto Ri <sub>u</sub> ,	108	86	310	167	,	102		Spherical Flectrostatic	СМО		S
3/	NIRO	1015	_	406	114	152	179		77		Analyzer			
	Ah.3., 530	7 Nov	NSMR	528	305	5	229	-	200	1	Monochromator	Pa viting Control	No RPA Data	μ,
8	Aerobee 150	1745	•	540	105	l	243	•	98		NFA			
,	AD3.365	15 Nov	Brazil	1	190	5/	529	•	169	ı	Day Air-Glow Monochromator		PM Tube Failed 20% Data Return	<b>ند</b>
ξ, 	Aerobee 150	2130	-	588	126	59	227		711	3			on Exper.	_
Ç	AG7.314	19 Nov	Brazil		65	301	124		175			Recovery	Only Flotation	s
<del></del>	NIRO	1008	1		79	901	911		100	,				
]-	1 1km Jester to Show Berformance.	Porto	rmance: S - Success	icent		7	0 10 400		Tong	2 Lies Type of Becovery and Type to Brand of ACS	of ACS.			

Use Letter to Show Performance: S - Success,
 P - Partial Success, F - Failure, N - None Used.

こことでいいこととは、これでは、これのできる。これの地域は、大きなない。 これの こうしゅう こうしゅう こうしゅう しょうしゅう しゅうしゅう しゅうしゅう

2. List Type of Recovery and Type or Brand of ACS.

-											AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	177
	•	100			MPACT		ğ	GEE	PAY.					
	-	1961		TIME (SEC)	RANGE (KM)	AZ (DEG)	ALT (KM)	CM) (SEC)	LOAD					
LINE	NUMBER	DATE	PLACE	I	PRED.	PRED.	PRED.	PRED.	(LBS)	RECOV. ERY 1.2		Je salani a document	34044	TOTAL
ġ	TYPE	E C	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	S.C.	ACS <sup>1,2</sup>	EXPERIMENTS	SQTTOR! STSIEMS	nemanns	PERF.
5	AG7.319	22 Nov	Brazil	,	65	108	124		175	•		ACS	Chute Only Found	s
•	NIRO	1007	•	470	9	114	911	,	8	,				
62	AF7.658	29 Nov	APGC	342	103	165	199	•	190	•	Smoke frail,			s
¥	NIRO	2151	•	340	191	158	121	,	211	'	וחנסתובווכב			
۶	AF7.661	29 Nov	APGC-D3	342	116	292	119	,	382	,	Smoke Irai.			S
?	NIRO	1315	,	,	113	265	122		711	,				
44	AF7.662	3 Dec	APGC-03	342	129	292	119	,	190	ş	Smoke Trail,			s
	NIRO	2153	•	,	116	555	124		711		3213030			
;	AF7.657	3 Dec	APGC	342	126	162	119	,	190	1	Snoke Trail,			s
Ç.	NIRO	2153	•	344	142	160	119	,	211		lurbulence			
46	AG7.880	4 Dec	CRR	374	56	110	134	1	164	,	Mass. Spec.		Fist Spin After	~
!	NIRO	0222	•	395	75	123	148		26	,	BOOLE LIBERIUS		7	
47	AF7.387	4 Dec.	CRR	330	82	114	114	,	200	,	Mass Spec.		Flat Spin After	s
	NIRO	2244	•	362	63	113	121		35	,	רשוולווסו בנוספ		בייני בייני	
Ş	AF7.388	6 Dec	CRR	356	55	911	134		162	,	Mass Spec. Lauchur Probe		Ignition & 28 Sec Little Coning	s
ç	NIRO	1825	•	383	629	01.1	<u> </u>	,	26		· •			
-	1. Use Letter to Show Performance:	how Perfo	rmance: S - Success	13800		2 1 100 1	10 90			Brand S	A ACC			

Use Letter to Show Performance: S - Success, P - Partiel Success, F - Failure, N - None Used.

2. List Type of Recovery and Type or Brand of ACS.

IMPACT	IMPACT	IMPACT			1 1	Ш	APOGEE	PAY.		AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
1967			TIME (SEC)	RANGE (KM)	AZ (DEG)	ALT (KM)	TIME (SEC)	LOAD					
NUMBER DATE PLA	۵	LACE	PRED.	PRED.	PRED.	PRED.	PRED.	WT. (LBS)	RECOY: ERY 1,2	3111371103023	SM3T3V3 TGC0g113	200	701
TYPE TIME SCIENTIST	SCIE	₹TIST	ACT.	ACT.	ACT.	ACT.	ACT.	S.C.	ACS1.2		SOLLON STOLENS		PER
AF17.7500 6 Dec CRR	S.		328	63	88	114	,	505	•	Impedance Probe. Proton Detector.			S
Black 1630 -	,		357	53		137	,	180	ı	Langmuir Probe			
AF3.268 13 Dec WSMR			461	82	360	164		334	,	Particle Collectors	Recovery	Paytoad Farlure 6-Switch Farlure	ŧ
1259	1		459	35	004	164	,	191	-			Recovery Failed	
13 Dec EGTR			,	84	179	1	1	901	1	Chemical (IMA)			S
0743 -	•			137	179	187	1	I.	•				
AG7.630 13 Dec EGTR			182	182	202	159	ı	115	•	Chemical (TMA			S
0823 -	1		961	315	196	164	ı	98	•				
AH8.665 14 Dec APGC			534	140	178	596	,	150	,	Chemical Release	CW Oscillator	Pitch-Roll Coupled	<b>(</b> 1.
Nike/ 0837 -	·		490	35		103	THE RESERVE AND THE PERSON NAMED IN COLUMN 1	દ્ધ				Possible Fin Leading Edge Malalignment	,
14 Dec	34	J	166	185	200	161		115	•	Chemical Release Grenades			-so
Nike/ Tomahawk 0858 -				201	501	161	,	98	•				
AF7.663 16 Dec   APG		APGC-D3	342	₹/	,	122	,	190	***	Smoke Trail -			· ·
2158			,	1	ı	127	•	112	•				
AF7.659 16 Dec APGC		Ų	345	21	•	221	•	190	•	Smoke Irail - Turbulence		:	<u>~</u>
2158	<u>'</u>		370	09	·	126	,	112	,			•	
- 2	15	1 Jee Letter to Chou Bestermanns C Survey	3		,			12	2 List Turn of Benness and Turn or Brand of ACS	Af ACS.			

1. Use Letter to Show Performance. S - Success, P - Partial Success, F - Failure, N - None Used.

TO THE PROPERTY OF THE PROPERT

2. List Type of Recovery and Type or Brand of ACS.

A SET THE COLUMN SEED SEED THE PROPERTY OF THE PERSON OF T

				1		ľ	1				AIA	AIR FORCE GFOPHYSICS LABORATORY	S LABORATORY	
	***	1968		TIME (SEC)	RANGE (KM)	AZ (OEG)	ALT (KM)	TIME (SEC)	PAY.					
LINE	NUMBER	DATE (TU)	PLACE	PRED	PRED.	PRED.	PRED.	PRED.	WT (LBS)	RECOY. ERV1.2	3114344030	SM3T2V2 TGC99113	BEMARKS	TOTAL
Ö.	TYPE	TIME (UT)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	E.G.	ACS <sup>1,2</sup>		Series House		PERF.
	467.634	17 Jan	CRR	428	911	9/	86!	•	100	-	TMA, Orborane		No Track	S
-	NIRO	2308		,	,				8,7					
^	AG7.633	19 Jan	CRR	428	122	7.2	261		201	,	TMA, Dittorane		No Track	S
•	WTR0	2308	•		•		,		'n					
<u> </u>	AGS-648	22 Jan	CRR	381	301	3/2	153		287	,	Nitric Ocide			<u> </u>
,	Tomahawk	1215	•	413	86	80	691		137	1				
	AG7.635	22 Jan	CRR	478	116	7.6	188	•	106	-	TMA, Piborane		No Track	s
,	NIRO	1320		428	150	75	,		53	•				
	AH3.531	19 Feb	WSWR	528	124	356	062	•	200	1	រពរ			s 
ى. -	Aero	1855	1		176	35¢	543		98	,				
	AE7.290	15 Mar	CRR	394	80	121	154		145	,	Mag . Elec. 8 Proton Detectors -			<u>~</u>
0	NIRO	0710	,	388	8	134	191	•	•	•	Good, tSA failed			
,	AE3, 154	29 Mar	WSWR	804	9	355	121		350	1	Spectrograph	Recovery · Partial Success	First Severance Did Not Occur -	۵.
`	Aero	0829	4	402	64	356	122	•	165	,			Film Recovered - 0	
	AH7.177	1 May	APGC	456	126	173	204	•	11		7" Falling Sphere		Best Yet!	S
•	NIRO	2025		495	158	151	217	•	63					
-	1. Use Letter to Show Performance. P Partial Success. F Failure. N	Show Perfo.	mance. S - S	S - Success, I - None Used.		2. List 7	ype of R	ecovery a	and Type	2. List Type of Recovery and Type or Brand of ACS.	of ACS.			

Use Letter to Show Performance. S – Success,
 P – Partial Success, F – Failure, N -- None Used.

											AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	Ų
	Ä	1968		TIME (SEC)	RANGE (KM)	A2 (050)	ALT TIN	TIME (SEC)	PAY.					
¥	NUMBER	DATE (UT)	PLACE		PRED.	PRED.	PRED.	PRED.	WT. (LBS)	RECOY.	SYNEMIAENTS	SUBTRY CYSTEMS	OEMABKS	9
ð.	TYPE	EU)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.		ACS1.2		SOCIONI SISIEMS	nemano.	PEF
۰	AH7.178	2 May	APGC	456	125	170	204		7.7	,	7" Falling Sphere		No Sphere Separation	·
n	NIRC	0525	•	459	167	151	216		63	•				
2	AE7.325	2 May	APGC	445	121	0/'	198		85		Density - Electron Rackscatter		Experiment Failed No Data	<u>u</u>
2	NIRO	0090	•	453	114	180	212		. 69	•				
=	AG7.644	2 May	Puerto Rico	459	142	310	217		82		Chemirul Release			~ 
•	NIRO	0515L	•	457		952	206		20					
:	AG7.643	7 May	Puerto Rico	459	142	301	222		8		Chemical Release		Release 4 Sec Late	· ·
2	NIRO	CSOOL	•	467		532	217		7.3					
	AH8.670	12 May	Puerto Ríco	•	153	253	214		247	-	Chemical Release		No Release -	
<u>~</u>	Tomahawk	0506L	•	•	153	36.1	198		114				300 Sec	
:	AH8.666	13 May	Puerto Ríco	-	151	299	214	ı	240	,	BA Release			
<u> </u>	Tomahawk	05061	•	٠	•	682	198	•	125					
1	A67.571	16 May	Kauai	433	•	345	193		95		Expanding Sphere			
2	HIRO	23001	•	465	1	325	201	,	87	•				_
7	AH7.572	23 May	Kauai	433	•	345	193		89	1	Expanding Sphere			
2	MIRO	11001	•	469		355	201	,	87	ı				
]_	se Letter to Si	how Perfo	1. Use Letter to Show Performance: S Success.	ICC#83,		ב רוצו ב	VDe of R	CO XV	ind Type	2 List Type of Reco wy and Type or Brand of ACS.	of ACS.			

1. Use Letter to Show Performance: S - Success, P - Partial Success, F - Failure, N - None Used.

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TIME RANGF (SEC) (ICM)	RANGF (Kim)	RANGF (Kim)		Ğ.	ອ			LOAD					7
DATE PLACE PRED. PRED.	PLACE PRED. PRED.	PRED.		PRED			PRED.	WT.	RECOY. ERY1.2	or in a second	SMETSVS I GOOGLES	BEMARKS	101,
SCIENTIST ACT. ACT.	ACT. ACT.	ACT.		ACT.		ACT.	ACT.	S S S C	2,1SJ4	CAPERIMENIS	SOLLONI STEERS		PE PE
0 10 Jun CRR 346 76 110	CRR 346 76	92		110		127	•	510		PCA - Absorption Event - Many		Rocket Farlure at 13,000 Pt	14.
1757		-		•		•	-	181	•	Experiments			_
18 Jul APGC 334 71 -	APGC 334 71	1,1				121	-	197	,	Mass Spectrometer		Experiment out During 2nd Stage	
9130 - 363 58 178	363 58	58		178		125	•	95	•			Burn	_
A MARINE MARINE	APGC		Accidental La	ra ra	5	nch Whi	le Chec	ing Fi	ring Cir	cuit			
			•										
23 Jul APGC - 87 193	- 87	87		193		191	•	135		tMA Puffer	OM OSC		~
0418	5	•				•	-	90					
23 Jul APGC - 92 164	- 92	92		164		198	-	85	,	TMA Trail	ON OSC		~
0419   57   163	- 87	87		163		201	ı	29	'				
23 Jul APGC 357 80 -	APGC 357 80	80		_ •		132	•	153	1	Mass Spectrometer			
0423 - 410 60 160	410 60	09		160		142	•	87					_
,	, ,	,	:	194		เรเ	•	140	1	TMA Puffer	350 M3		
382	382 55	382 55		230		150	1	104	•				$\dashv$
23 Jul APGC - 80	APGC - 80	80		164	-	89	•	89		TMA Trail	כא 350 כא		S
0,	0	٥٥		15.4		200		د	·				
	NUMBER TYPE TYPE AF17.7516 BB AG7.881 AG7.642 AIRO AIRO AIRO AIRO AIRO AIRO AIRO AIRO	57 g g	1968  R (UT) TIME PLACE (UT) TIME SCIENTIST (UT) 10 Jun CRR 1157 - 118 Ju1 APGC 23 Jul APGC 0418 - 23 Jul APGC 0419 - 23 Jul APGC 0423 - 23 Jul APGC 0428 -	1968   TIME   CSC)   TIME   (UT)   CSC)   CSC)	1968   TIME   CSC)   TIME   (UT)   CSC)   CSC)	1968   TIME   CSC)   TIME   (UT)   CSC)   CSC)	1968   TIME   CSC)   TIME   (UT)   CSC)   CSC)	1968   TIME   CSC)   TIME   (UT)   CSC)   CSC)	1968   TIME   CSC)   TIME   (UT)   CSC)   CSC)	1968   TIME   CSC)   TIME   (UT)   CSC)   CSC)	1968   Time   Manage   Act   Act   Corp.   Act   A	1968   Time   Manage   Act   Act   Corp.   Act   A	1968   10 Jun   10

1. Use Letter to Show Performance. S - Success.
P - Partial Success, F - Failure, N - None Used

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National					-					ſ	_	AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
PLACE   PRED	196	96	œ		TIME (SEC)	MPACT RANGE (KM)	AŽ (DEG)	A APO	GEE TIME	PAY					
SCIENTIST   ACT.   AC	NUMBER (	<u> </u>	SATE (UT)	<u> </u>	PRED.	PRED.	PRED.	PREC	PRED.	~~~	RECOY ERY 1.2				101
MSMR         488         E5         355         211         -         732         -         HW - Farthal Data           -	TYPE	Щ	TINE UT	-	ACT.	ACT.	ACT.	ACT	ACT		ACS1.2	FXPERIMENTS	SUPPOHI SYSTEMS	HEMAKKS	PERF
Matal         -         -         127         -         98         -         Meteorrite Oust           Matal         -         -         158         -         138         -         Meteorrite Sensor           Matal         -         -         98         -         100         -         Meteorrite Sensor           Matal         -         -         154         -         138         -         Meteorrite Sensor         IM Failed at 180 Sec           CRR         494         135         109         179         -         138         -         Meteorrite Sensor         IM Failed at 180 Sec           CRR         494         135         109         179         -         235         -         Meteorite Sensor           CRR         494         135         109         179         -         235         -         Meteorite Sensor           CRR         496         135         109         179         -         235         -         Meteorite Sensor           CRR         418         129         95         -         120         -         Meteorite Sensor           CRR         195         95         -         105         - <td>AG3.532 6</td> <td>٩٠</td> <td>Aug</td> <td>WSMR</td> <td>488</td> <td><b>\$</b>3</td> <td>355</td> <td>112</td> <td></td> <td>232</td> <td></td> <td>EUV - Fartial Bata 8PA - Partial Bata</td> <td></td> <td></td> <td>,</td>	AG3.532 6	٩٠	Aug	WSMR	488	<b>\$</b> 3	355	112		232		EUV - Fartial Bata 8PA - Partial Bata			,
Matal         -         -         158         -         138         -         Meteorite Dust           -         98         -         100         -         Meteorite Sensor           -         569         43         113         98         -         105         -         Meteorite Sensor           -         569         43         113         98         -         105         -         Meteorite Sensor         IM Failed at 180 Sec           -         961         66         114         153         -         100         -         Meteorite Sensor         Returned at 300 Sec           CRR         494         135         109         179         -         235         -         IR Horiton           GRR         494         135         109         179         -         235         -         IR Horiton           GRR         494         136         -         235         -         Meteorite Sensor         Meteorite Sensor           GRR         430         177         -         120         -         Meteorite Sensor           GRR         430         177         -         110         -         Meteorite Sensor      <	Aero 150 1		845	•	,	,	,	121	,	86					
- 998 51 121 158 - 100 - Meteorite Sensor Matal - 1 98 - 200 - Meteorite Sensor Matal - 1 98 - 200 - Meteorite Sensor Matal - 1 94 135 109 179 - 235 - 18 Hariton - 180 180 Sec Matal - 1 958 53 119 95 - 105 - Meteorite Sensor Mateal - 1 97 - 200 - Meteorite Sensor Mateal - 1 97 - 200 - Meteorite Sensor Mateal - 1 97 - 200 - Meteorite Sensor Mateal - 1 98 53 119 95 - 105 - Meteorite Sensor Mateal - 1 958 53 119 95 - 105 - Meteorite Sensor Mateal - 1 958 53 119 95 - 105 - Meteorite Sensor Mateal - 1 958 53 119 95 - 105 - Meteorite Sensor Mateal - 1 958 53 119 95 - 105 - 105 - Meteorite Sensor Mateal - 1 958 53 119 95 - 105 - Meteorite Sensor Mateal - 1 958 53 119 95 - 105 - 105 - Meteorite Sensor Mateal - 1 958 53 119 95 - 105 - 105 - Meteorite Sensor Mateal - 1 958 53 119 95 - 105 -	AG7.273 8	- 25	Aug	Matal				158		138	-	Meteorile Dust		Water Recovery	^
Matal         -         -         98         -         200         -         Meteorite Semsor           -         564         43         113         98         -         105         -         Meteorite Semsor         IM Failed at 180 Sec           -         961         66         114         153         -         128         -         Meteorite Semsor         IM Failed at 180 Sec           CRR         494         135         109         179         -         235         -         IR Horizon           RAtal         -         97         -         235         -         Meteorite Semsor           CRR         410         163         90         177         -         110         -         Chemical Release           CRR         195         95         -         105         -         Chemical Release           CRR         195         95         -         105         -         Chemical Release           CRR         195         95         -         105         -         Chemical Release           -         220         -         257         -         Chemical Release           -         220         -	NTRO 0	°	7001		866	15	121	158	,	001					
- 564 43 113 98 - 105 - Meteori-e Sencor [FA failed at 180 Section 1.6	AG7.274 11	Ξ	Aug	Matal				86	,	200	•	Meteorice Sensor		Recovery failed	
Natal         -         -         -         154         138         -         Meteorire Sensor         IM Falled at 180 Section at 180 S	NIRO 0	_	704L	•	569	43		£		105					
CRR 494 135 109 179 - 235 - 18 Heriton  LALAI 958 53 119 95 - 1200 - Metcorite Sensor  CRR 410 163 90 177 - 110 - Chemical Release  CRR 195 95 90 148 - 257 - Chemical Release  CRR 195 95 97 183 - 1257 - Chemical Release  - 220 124 97 193 - 123 - Chemical Release	AG7.275 1.2		φηγ					154		138		Meteori'e Sensor	IM Failed at 180 Sec Seturned at 300 Sec		٠,
CRR 494 135 109 179 - 235 - IR Horiton  - 680 141 110 179 - 120 -  Hatal 97 - 200 - Metcorite Sensor  - 958 53 119 95 - 105 - Chemical Release  CRR 410 163 90 177 - 110 - Chemical Release  - 418 129 95 - 87 - S57 - Chemical Release  CRR 195 95 90 148 - 257 - Chemical Release  - 220 124 97 193 - 123 - Chemical Release			700L	,	196	99	114	153	,	100					-
- 680 141 110 179 - 120 - Metcorite Sensor - 958 53 119 95 - 105 - Chemical Release - 174 118 129 95 - 105 - Chemical Release - 174 118 129 95 - 87 - Chemical Release - 174 - 220 124 97 193 - 123 - Chemical Release - 174 - 220 124 97 193 - 123 - Chemical Release - 174 - 220 124 97 193 - 123 - Chemical Release - 174 - 220 124 97 193 - 123 - Chemical Release - 174 - 220 124 97 193 - 123 - Chemical Release - 175 - Chemical Release - Chemi	AE 3, 725 15	<u> </u>	Aug		494	135	109	6/1		235	·	IR Horiton		Lost Beacon Track	,
Hatal         -         -         97         -         200         -         Metcoriie Sensor           -         958         53         119         95         -         105         -         Chemical Release           GRR         410         163         90         177         -         110         -         Chemical Release           CRR         195         95         95         -         87         -         Chemical Release           CRR         195         96         148         -         257         -         Chemical Release           -         220         124         97         193         -         123         -           -         220         124         97         193         -         123         -			859		089	133	9.1	1/9		120					
CRR 410 163 90 177 - 110 - Chemical Release - 418 129 95 - 87 - 87 - Chemical Release  CRR 195 95 9 148 - 257 - Chemical Release - 220 124 97 193 - 123 - 123 -	AG7.276 ,5		Aug			Ŀ		26		200	٠	Meteorite Sensor		Sensor Failed	-
CRR 410 163 90 177 - 110 - Chemical Release - 418 129 95 - 87 - Chemical Release  CRR 195 95 90 148 - 257 - Chemical Release - 220 124 97 193 - 123 -	NIRO 0	°	7001	•	958	53	119	95		105					
- 418 129 95 87 - Chemical Release - 220 124 97 193 - 123 -	AG7.636 19	2	Aug		410	163	96	171		110	•	Chemical Release		Radar Lost Track	~
CRR 195 95 90 148 - 257 220 124 97 193 - 123 -	1 1180		210	•	418	129	95	•	•	87	•				
- 220 124 97 193 - 123	АНВ.649 20	50	Aug		195	95	06	148	٠	257	,	Chemical Release			v
	Tomahawk	0	006	•	220	124	97	193	:	123	,				

1. Use Letter to Show Performance · S -- Success, 2 List Ty P -- Partiel Success, F -- Failure, N -- None Used.

N - Name Head 2 List Type of Re overy and Type or Brand of ACS.

				L	TOVONI		Sak	1		_	A A	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	172
	-	1968		TIME (SEC)	RANGE	AZ (DEG)	KE A PO	APOGEE T TIME M) (SEC)	PAY. LOAD					
LINE	NUMBER	DATE (UT)	PLACE	PHED.	PRED.	PRED.	PRED.	PR.F.D.	WT. (LBS)	RECOV ERY 1.2				
·	TYPE	TIME (CT)	SCIENTIST	ACT	ACT	ACT.	ACT.	ACT.	ي چ تو	ACS1.2	EXPERIMENTS	SU-PORT SYSTEMS	REMARKS	PERF
~	AH7,685	20 Aug	CRR	410	191	29	17.5		110		Chemical Release			ر د
	NIRG	0101		401	191	08		!	. 20		20.702			
<u></u>	AH7.667	27 Aug	CRR	408	•		174		107		Chemical Release		Radar tost Track	~
_	N120	~334		4	135	112		,	, ,			_	296 60 10	
×	AH8.668	27 Aug	CRR	446	124		195		245		Chiencal Release			v
	Tomahank	0444	1	459	300	3	501	,	12.2	-				
<u>:</u>	407.913-1	4 Sep	£glın	467	100	241	220	,	80		Density 7" ophere			·
$\neg \neg$	NIRO	0104	•	508	122	238	227	205	19					
<del>-`-</del> '	407.913-2	4 Sep	£g]in	195	100	242	220		88		Density 7" Sphere		No Sphere Separa-	
	NIRO	6710	•	503	11.4	240	23.2		;					
2	AT3.170	16 Sep	WSMR	•	3.7	,	2.2		06		Rail Launch	Diagnostic Payload		
	Aero 170	16:50	•	•	æ.	-	- 1		ğ	]   .	Inert sustainer			
! 	AB19.287	9 Nov	CRA	864			36.		269		Magnetometer		Lost Radar Track	~
$\rightarrow$	Javelin	0855		_	:	041	1			N N	ratione counters		UVEF THE TONIZON	
\$ 	AF7,292	4 Nov	CRR	400	•	070	051		145	,	Magnetometer Particle Counter		No 2nd Stage	
	98	6580		127	5.5	083	<u>9</u>		103	,	ימיניה בסמונני		20111161	

1. Use Letter to Show Performance. S · Success, P ··· Partial Success, F ··· Failure, N · None Used

was employed and a region

2. List Type of Recovery and Type or Brand of ACS

	•				IMPACT		APO	APOGEE	3		HI4	AIR FORCE GEOPHYSICS LABORATORY	LABOHATORY	
- 1	-	1968		TIME (SEC)	RANGE (KM)	AZ (DEG)	ALT (KM)	TIME (SEC)	LOAD			:		
LINE	NUMBER	OATE (UT)	PLACE	PRED.	PRED.	PRED.	PRED.	PRED.	WT. (LBS)	RECOY. ERV	L.			1
$\dashv$	TYPE	UT.	SCIENTIST	ACT.	ACT.	ACT.	ACT	ACT		ACS1.2	EXPERIMENTS	SUPPORT SYSTEMS	REMARKS	PERF.
	AG17.757	19 Nov	CRR	328	63		116	٠	588	•	PCA - Several			ν
	88	080	ı	382			124			-	Capaci India			
÷	A13.533	21 Nov	HSMR	520	•	٠	240	٠	198	٠	EUV Barrial Date		4-16-10 danie - 16-10 danie	v
	lero 150	1830	ı	•	•	•	244	•	86					···-·
	AF7.660	9 Dec	ADIC	344	7.7		611		190	- 	Smoke Trail		estimates in all maris from the equipment of configurations and the configuration and th	~
43	NIRO	2155	ŧ		09		124	,	112					
	AF7.664	9 Dec	AOTC	344	76	270	611	,	190	•	Smoke Trail			۷
‡	NIRO	2155	•	350	89	274	1117	•	112	•			-	
45	AG7.883	10 Dec	SdOM	338	124	•	911	,	181		Mass Spectrometer			S
1	MIRO	1832	1	364	•	•	122		26		Langmuir Probes			
46	AH7.887	12 Dec	WOPS				611		185		Mass Spectrometer		And the same of	ű
	NIRO	0245	•	357			11.7		95	-	cogo L Louidium			
									_					
ــــــــــــــــــــــــــــــــــــــ			Actual to the second of the se											

1. Use Letter to Show Performance: S - Success, 2. List Type J. Recovery and Type or Brand of ACS. P - Partial Success, F - Failure, N - None Used.

							-	-	-		H W	AIN PONCE GROPHINGS FABORALONY	STABORALORY	
	-	1969		TIME (SEC)	RANGE (KM)	AZ	ALT TIME	SEC)	FAY					
: ING	Š	DATE (UT)	-	PRED.	PRED	PRED.	PRED.	PRED.	(LBS)	RECOY		Call The Call of t		TOTAL
Š	TYPE	T ()	8	ACT	ACT.	ACT	ACT	ACT	S.S.	ACS1.2	EXPERIMENTS	SUPPOHI SYSTEMS	HEMARKS	PERF
	AH7.671	6 3811	Eglin	431	187	87.1   138	702		8.		Chemical Release BA		No "adar Track	
-	RIRO	2341	- 7000 HI III III II II III III II II III I					: : : '		-				
	AG7.626	7 เปลก	fg1in	378	/6	176	÷-	•	17-7		Chemical Release IMA	Strobe inabts	Visual Irack Over the Jon	\$
•	NIRO	0035		v.	4.	200		,	116	,				
	AH7.672	7 Jan	Eglin	450	185	176	508	-	0 <u>8</u>	,	Chemical Release BA			
າ 	NIRO	2338	•	459	881	220	· ~		. 75	;				
-	AG7.652	12 Jan Egitn	Eglin	378	103	174	146		<u> </u>		Chemical Rolease 198			~
	NIRO	0132	,	391	79	165	158	,	91.1					
ي	AH7.673	13 Jan	fglin	431	191	175	%0 <i>2</i>		08	٠	Chemical Release BA			۶
<b>`</b>	NIRO	2343	•	465	5	165	2.20		3	,	<u> </u>			
_	AH7.891	31 Jan	WOPS	355	135	114	134		<u> </u>		Mass Spect (+) Langmufr Probe			S
•	NIRO	1730			130	,	134		88					
	AH7, 573	31 Jan	WOPS	431	117		193	,	6		Inflatable Sphere			
	NIRO	1836		•	•			1	87	,				
	AH7.576	31 Jan W01 3	MOI 3	431	â		193	•	06	,	Inflatable Sphere			,
•	R1R0	2153	•		•			•	8	,				
ب ا	he Letter to Si	how Perfo	1. Use Letter to Show Performance: S Success, P Partial Success F Failure N None Head	uccess, ne Head		2. List	Type of	4 BCOVERY	and Typ	2. List Type of Recovery and Type or Brand of ACS.	of ACS.	Arramon university of the primer parties of the primer of		

1. Use Letter to Show Performance: S .- Success, P .- Partial Success, F .- Failure, N .- None Used.

	REMARKS TOTAL				/	, ,	, ,	, , ,	, , ,									
	SUPPORT SYSTEMS REM									ng Control	n Control	ng Control	ng Control	ng Control	n Control	ng Control	ig Control	a Can'tol
			Ç							t - Pointing Control								
	- EXPENIMENTS		Minute of Arc			Aurora Input -	Aurora Input -	Aurora Input - Output Auroral Input -	Aurora Input - Output Auroral Input - Output	<del></del>			<del></del>					
	RECOY ERY 1.2	3	\$		\$	s s	s s	s s z z	s s s s s		s s z s s							
	(LBS)	2 E	07.0	_	107	30.	306	306	92 11 62 11	701 111 162 111 194	306 306 111 111 110 110	366 111 111 100 196	306 1111 1111 1110 1110 1110	111 001 001 001 001 001 001 001 001 001	306 111 111 111 111 100 110 110 111 111 1	100 111 111 110 110 110 110 110 110 110	366 111 111 110 110 110 110 110 111 111 1	100 111 111 110 110 110 110 110 110 110
1050	PRED.	<b>—</b> 11					8 8 8 8	1 1 1										
ומבטו ואושו	PRED.		189	9		32	22 . 25	32, 88	153 159 159	15.5 15.9 15.9 15.1	15.5 15.5 15.9 15.1 24.5	15.5 15.9 15.9 15.1 15.1 24.5 24.6 24.6 24.6 24.6 24.6 24.6 24.6 24.6	15.5 15.5 15.9 15.1 15.1 24.5 24.5 23.3 23.3	15.5 15.5 15.9 15.9 24.5 24.5 24.5 24.5 24.5 24.5 24.5 24.5	15.5 15.5 15.9 15.1 15.1 15.1 15.1 24.5 24.5 24.6 23.3 22.0 29.8 29.8 29.8	155 155 156 151 151 245 245 233 220 238 238 298	15.5 15.5 15.9 15.9 2.20 2.20 2.20 2.20 2.20 2.20 2.20 2.	15.5 15.5 15.9 15.9 2.20 2.20 2.20 2.20 2.20 2.20 2.20 2.
	PRED.					620	079	079	079 	079  .079 .148 .147	079 079 148 147 357	079 079 147 147 354 355	079 079 147 357 354 356 356	<del>   </del>	<del>  </del>	<del> </del>	<del> </del>	<del></del>
	PRED		-	163		. :	129	129			35 88 90 85 82 82 82 82 82 82 82 82 82 82 82 82 82		35 88 80 88 81 139 139 139 139 139 139 139 139 139 13		85 80 90 90 113 113			
DAED				767	458		:	146.2								463 463	467 570 530 530 650 640 463	5.70 5.70 5.30 5.30 6.50 6.40 6.40 4.63 3.93
	PLACE	200	Kata l		CRR				CRR									
_	DATE (UT) TIME	(T)	7 Mar	2240	21 Mar		0453	0453 30 Mar	<del>                                     </del>	0453 30 Mar 0333 4 Apr	<del>-                                    </del>	<del>-   ,     -   -   -   -   -   -   -   - </del>						
	NUMBER		AT 3. 727	Aero 150	A13,756		Aero 150											
	LINE NO.		0		, I	_	_		=	=	= =		2 2 2	2 2 2	E 2 4	= = = = = = =	E 5 5 51	11 21 12 21 22

1. Use Letter to Show Performance: S.- Success, P.- Partial Sucress, F.- Failure, N. None Used

2. List Type of Recovery and Type or Brand of ACS

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		1969		TIME	RANGE	AZ	ALT TIM	TIME	PAY					
N N	NUMBER	DATE	PLACE						¥.	несоу			AND THE PROPERTY OF THE PROPER	
Š.	TYPE	TIME	SCIENTIST	ACT.	ACT	ACT.	_		آ د او آم	ACS1.2	EXPERIMENTS	SUPPORT SYSTEMS	REMARKS	PERE
-	AH7.674	13 May	Eglin		124	165	196		95		Chemical Release			<i></i>
:	MIRO	0123	-	429	179	162	192		65					
× ×	Ан7.686	14 Ray	kauai	415	145	034	175	,	91		Chemical Release			\ .
<u>:</u>	N1R0	1510	•	415	145	337	17.5		96					, 
	447.679	15 May	Eglin		86	179	185		96		Chemical Release			,
2	KIRO	0105	•	445	62	166	, 50 204		S					
29	AH7.675	15 May	Egitn	·	86	178	85.		7		Chemical Release			~
	NIRO	8710	•	444	101	140	204		5.0					
	AC19, 289	16 May	CRR	096	811	690	766		146		Magnetometer	by delater of agreement and the second secon	18 Out # 320 Sec	ļ.,
<u>.</u>	Javelin		Ĩ	- G	822	074	67.1	,	3;	•				
	AH7.687	22 May	Kauai	2	l	345	175	<u> </u>		,	Chemical Release	AND THE PROPERTY OF THE PROPER		_
;	MIRO	0546		\$15	. 26	340	6/1		96	1				,
~	AH8.669	22 May	Kauai	417	21.7	345	187		252	ļ.	Atomic Oxygen			<i>v</i> ,
; ]	N/T	0737	-	417	217	345	177	•	123		, northweight			
25	A08.919-1	22 May	Kauai	415	121	345	621	1	265		No Irails		Sandra fins	۵
	1/1	1300	•	415		315	156		142		Failed			
÷. ⊃σ	1. Use Letter to Show Performence. P Partiel Success, F Failure, N.	NOW Perfor		S - Success, None Used,		2. List 7	ype of R	ecovery a	and Type	2. List Type of Recovery and Type or Brand of ACS.	of ACS.			

25 A07, 318-1 22 May Kauaf 26 A7, 318-1 22 May Kauaf 27 A16,010-1 15 Jun Matal 28 A719,291 30 May CRR 29 A718,591 1105 - 20 A71,861 18 Jun WOPS 29 A71,861 18 Jun WOPS 29 A71,861 18 Jun WOPS 30 A17,888 1 Jul 6915n 30 MIRO 2200 -	2000	RANGE (KM)	AZ (DEG)	X X X	M) (SEC)	COVO					
AD7.918-1 22 May 1  AD7.918-1 22 May 1  NIRO 1503  AF19.291 30 May C  Javelin 0851  A16.010-1 15 Jun A  BB IV 1105  AD21.861 18 Jun A  TB 0156  AT3.535 24 Jun A  Aerobee 1900  AH7.888 1 Jul E  NIRO 2200	_	_		PRED.	+-	LBS.	RECOY.				
A07.918-1 22 May NIRO 1503 AF19.291 30 May Javelin 0851 A16.010-1 15 Jun 88 ty 1105 ADZ1.861 18 Jun TB 0156 AT3.535 24 Jun Aerobee 1900 AH7.888 1 Jul NIRO 2200	IST ACT.	ACT.	ACT.	ACT.	ACT.	_	ACS1?	EXFERIMENTS	SUPPORT SYSTEMS	REMARKS	PERF.
AF19.291 30 May Javelin 0851 A16.010-1 15 Jun 88 tY 1105 ADZ1.861 18 Jun TB 0156 AT3.535 24 Jun Aerobee 1900 AH7.888 1 Jul NIRO 2200	415	146	345	175		110		Chemical Release			_
AF19.291 30 May Javelin 0851 AI6.010-1 15 Jun 88 fY 1105 AD21.861 18 Jun TB 0156 AT3.535 24 Jun Aerobee 1900 AH7.888 1 Jul NIRO 2200	415	146	343	51	,	9	,				
Abelin 0851  Ai6.010-1 15 Jun  BB IY 1105  ADZ1.861 18 Jun  TB 0156  AT3.535 24 Jun  Aerobee 1900  AH7.889 1 Jul  NIRO 2200	88	502	80	824		<u>\$</u>	,	Magnetometer			'
A16.010-1 15 Jun 88 tY 1105 ADZ1.861 18 Jun TB 0156 AT3.535 24 Jun Aerobee 1900 AH7.888 1 Jul NIRO 2200	978	496	104			25					,
88 tY 1105 ADZ1.861 18 Jun TB 0156 AT3.535 24 Jun Aerobee 1900 AH7.888 1 Jul NIRO 2200	808	340	8	605	,	198	,	VLF Propagation -			٠ ا
ADZ1.861 18 Jun TB 0156 AT3.535 24 Jun Aerobee 1900 AH7.888 1 Jul NIRO 2200	763	480	602	585		35		raned			
TB 0156 AT3.535 24 Jun Aerobee 1900 AH7.889 1 Jul NIRO 2200	•	٠		588		æ		Reentry Physics		17,350 FPS	~
AT3.535 24 Jun Aerobee 1900 AH7.888 1 Jul NIRO 2200 AR7.902.3 7 Aug	•	•				92		2			,
Aerobee 1900 AH7.889 1 Jul NIRO 2200 AR7.902.1 7 Aug	1020	82	349	217	•	225		EUV	вРС		, -
AH7, 888 1 Jul NIRO 2200 A07 902-1 7 Aug	<del>+</del> 006	•		214	•	113					•
NIRO 2200 A07 902-1 7 Aug	346	76	158	130		5	,	Mass Spectrometer			<u>ن</u>
7 4110	384	99	154	<b>≋</b>	,	83	***************************************	aruttal - no veta			
,	335	76	110	119		200	  -	Mass Spec - Failed		Burn Through at	ء ا
NIRO 0530 -	סונ	39	211	84		8		Cood		lroquois Ihroat 1 Sec before 8.0.	
AT7.179 7 Aug CR <sup>o</sup>		•		26		<u> </u>		7" Falling Sphere			s
NIRO 0435 -	•	,		195							

L			with his best particularly to the second	***************************************	MBACT		7000	-			AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
	Ä	1969		YIME (SEC)	MANGE	AZ OEG	HACT TIME	1 _	LOAD					
I S	NUMBER	DATE	PLACE	1	PRED	PHE	PRED.	PRED.	KT.	RECOY ERVY.2	A the second desiration of the second			TOTAL
ġ	TYPE	TIME (UT)	SCIENTIST	ACT	ACT.	ACT.	ACT.	ACT.	_	ACS1.2	EXPERIMENTS	SUPPORT SYSTEMS	KEMAKKS	PERF
	A07.902-2	13 Aug	CRR	335	9/	91.0	11.		-112		Mars Spectrometer Language Probe			×
3	NIRO	0523	7						٠,	Ì				
	A03.903-1 15 Aug	15 Aug	WSWR	5.76	1.1	354	<u>ر</u> ق ر		235		l uv			,
,	$\overline{}$	2155					72.		109	•				
<u> </u>	A16.010-7 6 Sep	6 Sep	Natal	808	340	O <sub>S</sub>	fg		86-		YIF Propagation			^
		11101		788	£.	91.1	623		Z					
		11 Oct	скк	135	1/6	011	61.		148		Mass, Spect Languitr Probe			~
ξ.	игко				•				. Ç	:				
	A03,910-2 23 Oct	23 Oct	CRR	01.5	2.	165	130		248		IR		17 Sec of Good Data then Sensor	Ŷ
`		0500	. 1	1120	106	150	180		11.3				Saturated	
¥,	AJ17.602	? Rov	CRR	378	3	070	F	,	909		Polarcap - 814			,
	8B V	2020	•	334	88	290	61		187	•				
2	AJ17.758	3 Nov	CRR	328	3	108	<u>1</u>		009		Aurora Input Outout - 621			
ĥ	BB V	1205	•	341	\$3	\$11	121		18/					
Ş	K-506.10A	3 Rov	CRR	335	1/6	011	21.		7.00		Polarcap - 814			_
} 		6290		38.2	72,	9.	È		9	,	-			
	10				***************************************		-	-						

1. Use Letter to Show Performance: S. Success, P. Partial Success, F. - Failure, N. None Used.

rmance: S. Success, 2, List Type of Recovery and Type or Brand of AGS alliers. N None User.

- 1					IMPACT		APOGEE	iee		_	AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
	ï	1969		TIME (SEC)	RANGE (KM)	AZ (DEG)	ALT (KM)	TIME (SEC'	LOAD					
,	NUMBER	DATE (UT)	PLACE	PRED	PRED.	PRED	PRED.	PRED.	WT. (LBS)	RECOV. ERY 1.2				10101
, ,	TYPE	TIME (CT)	SCIENTIST	ACT	ACT.	ACT.	ACT.	ACT.	S.E	ACS1.2	EXPERIMENTS	SUPPORT SYSTEMS	REMARKS	PERF
_	AT7.396	3 Nov	CRR	405	103	<u>e</u>	169		-	•	Density - 8"			S
, ,	NIRO	0542	•	423	121	112	509			1				
	AG7.882	3 Nov	CRR	379	<b>3</b> 8	011	140		160		Mass Spect 609	and the state of t		S
	N190	0730		388	75	122	140	,	87					
	AT7.397	3 Nov	CRR	402	103	011	169	,			Density 8"		Radar Lost	G.
	NIRO	1232	•		•	117	167		,	•				
	AJ17 616	3 Nov	CRR	328	63	911	114	•	900		Polar Cap - 814		No Door Ejection	,
	86 V	1352	•	333	55	911	122	,	187	,				
	AJ17.506-1 3 Nov	3 Nov	CRR	328	63	011	114	,	900	ı	Polar ionosohere			v
	8B /	1711	-	170	56	108	127		187	,				
	AH7.885	3 Nov	сяя	379	34	108	340		160	•	Mass Spect - 701			S
4.	NIRO	1730	-	393	95	116	143		87	,				
	A07.902-4	3 Nov	CRR	335	76	114	119	-	200	1	Mass Spect			s
~ .	41RO	1747	•	360	79	123	122	,	90	•				
	477.395	3 Nov	CRR	402	103	108	169	•	110	•	Density - 811		Pieces at 45 Sec	l in
44	NIRO	1840	-	239	61	116	47	,	ı					

1. Use Letter to Show Performance: S – Success.
P – Partial Success, F – Failure, N – None Used.

**发展** 

10   10   10   10   10   10   10   10						IMPACT		APOGEE	Γ			AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
NUMBER         (UT)         PAGE         PRED         PRED         PRED         REPO         (US)         EXPERIMENTS         SUPPORT SYSTEMS         REMARKS           TYPE         (UT)         SCIENTIST         ACT		Ä	696		TIME (SEC)	RANGE (KM)	AZ (DEG)	ALT KM;	ت ت پي	LOAD					
Type         Type <th< th=""><th>LINE</th><th></th><th>DATE (UT)</th><th>PLACE</th><th>PRED.</th><th></th><th>PRED.</th><th>PRED</th><th>PRED.</th><th></th><th>REC9Y ERY9.2</th><th></th><th></th><th></th><th>TOTAL</th></th<>	LINE		DATE (UT)	PLACE	PRED.		PRED.	PRED	PRED.		REC9Y ERY9.2				TOTAL
RB V         2284	Š.	Ш	TIME (UT)	SCIENTIST	ACT	ACT	ACT	ACT	ACT.	-	ACS1.2		SUPPORT SYSTEMS	HEMAKKS	PERF
66 by         2284         -         283         26         112         82         -         187         -		AJ17.611	3 Nov	CRR	328	63	110	77.	,	900		Polar Cap - 514		Payload Broke off at 13 Sec.	u
HINO         2308         -         45         11         120         162         -         <	o, •••		2245	-	283	97	211	82		187				One Boom out & 9 Sec	
HRO         2308         -         456         111         120         192         -		AT7.398	3 Nov	CRR	±05	103	108	169	,	,		Density 8'			s
AH7.893         4 Mov         CRR         392         110         143         -         160         -         Mass Spect - 701         Mass Spect - 701           AJ7.617         4 Nov         CRR         322         101         116         143         -         57         -         Polar Cap - 814	g F	NIRO	2308		456	111	120	761	,	,	,				
NIRO         2250         -         392         101         116         1.43         -         600         -         Polar Cap - 814         -         Polar Cap - 814           85 V         2308         -         342         53         115         177         -         187         -         Polar Cap - 814         -         80         -         Polar Cap - 814         -         80         -         Polar Cap - 814         -         80         -         187         -         Polar Cap - 814         -         80         -         187         -         Polar Cap - 814         -         85 Faited         -         80         -         Polar Cap - 814         -         85 Faited         -         80		AH7.893	4 Nov	เลร	379	38	110	140		160		Mass Spect - 701			v.
AJI7 617         2 Now         CRR         328         63         109         114         -         600         -         Polar Cap - 814           38 V         -         342         53         116         117         -         187         -         Mass Spect - 701         TW/Beacon - Good         WS Failed           AH7.889         5 Nov         CRR         335         76         110         122         -         87         -         Mass Spect - 701         TW/Beacon - Good         WS Failed           AH7.892         7 Nov         CRR         335         76         110         119         -         200         -         Mass Spect - 701         TW/Beacon - Good         MS Failed           AH7.680         5 Dec         Eglin         134         156         -         136         -         Chemical Release         Flashing Light           AH7.681         5 Dec         Eglin         136         135         -         135         -         136         -         134         147         -         136         -         144         -         144         -         144         -         144         -         144         -         144         -         144	6	NIRO	2250		392	101	116	143	'	87					
BS V         2308         -         342         53         115         177         -         187         -         Mass Spect - 701         TM/Geacon - Good         WS Failed           MIRO         -         -         360         76         117         122         -         87         -         Mass Spect - 701         TM/Geacon - Good         WS Failed           MIRO         0251         -         36         85         114         122         -         87         -         Chemical Release           MIRO         0930         -         388         106         184         156         -         113         -         Chemical Release         Flashing Light           MIRO         0930         -         388         106         184         167         -         113         -         Chemical Release         Flashing Light           MIRO         1000         -         181         167         -         133         -         Chemical Release         Flashing Light	S	AJ17 617	4 Nov	CRR	328	63	109	7	,	909					φ,
AH7.889         5 Nov         GRR         335         , 5         110         119         -         200         -         Mass Spect - 701         TM/Beacon - Good         WS Farled           AH7.892         7 Nrv         GRR         335         76         110         119         -         200         -         Mass Spect - 701         TM/Beacon - Good         MS Farled           MIRO         0251         -         36         85         114         122         -         87         -         Chemical Release           MIRO         0930         -         38         100         184         156         -         133         -         Chemical Release           MIRO         0930         -         38         106         184         156         -         113         -         TMA - Mater, Farled           MIRO         1000         -         184         100         184         167         -         133         -         Chemical Release         Flashing Light           MIRO         1000         -         184         167         -         133         -         Chemical Release         Flashing Light	20	35 V	2308	•	342	53	315	127	,	187					
MIRO         -         -         -         360         76         117         122         -         87         -         Mass Spect - 701         TW/Seacon - Good         MS Failed           AH7.680         0251         -         36         85         114         122         -         87         -         Chemical Release Anter, Failed         WS Failed           AH7.680         5 Dec         Eglin         394         100         184         156         -         136         -         Chemical Release Anter, Failed         WA - Water, Failed           AH7.681         5 Dec         Eglin         394         100         184         167         -         113         -         Chemical Release Anter, Failed         Ante	ũ	AH7.889	5 Nov	CRR	335	νį	110	119		2002	,	Mass Spect - 701	TM/Beacon - Good	MS Failed	'4
AH7.892         7 Mrv         GRR         335         76         110         119         -         200         -         Mass Spect - 701         TM/Beacon - Good         MS Failed           NIRO         0251         -         36         85         114         122         -         87         -         Chemical Release           AH7.680         5 Dec         Eglin         394         100         184         156         -         136         -         Chemical Release         1MA - Mater. Failed           AH7.681         5 Dec         Eglin         394         100         184         167         -         113         -         Chemical Release         Flashing Light           AH7.681         5 Dec         Eglin         394         100         184         167         -         133         -         Chemical Release         Flashing Light	3	NIRO	,	•	360	7.6	11,	122		18					
NIRO         0251         -         36         85         114         122         -         67         -         Chemical Release           AH7.680         5 Dec         Eglin         394         100         184         156         -         136         -         TMA - Mater, Failed           AH7.681         5 Dec         Eglin         394         100         184         167         -         133         -         Chemical Release         Flashing Light           NIRO         1000         -         384         113         163         154         -         79         -         TMA Trail	ű	AH7.892	7 Nav	CRR	335	76	310	119	,	200		Mass Spect - 701	TW/Beacon - Good		u
AH7.680         5 Dec         Eglin         394         100         184         156         -         136         -         Chemical Release           MIRO         0930         -         388         106         18;         158         -         113         -         Chemical Release         Flashing Light           MIRO         1000         -         384         113         167         -         133         -         Chemical Release         Flashing Light	,	NIRO	1520	•	36	82	7.7	122		87					
NIRO         0930         -         388         106         18:         156         -         113         -         Inchemical Release         Flashing Light           AH7.681         5 Dec         Eglin         394         100         182         167         -         133         -         Chemical Release         Flashing Light           NIRO         1000         -         384         113         183         154         -         79         -         79         -	,	AH7.680	5 Dec	Eglın	394	100		156	,	136		Chemical Release			3
AH7.681 5 Dec Eglin 394 100 182 167 - 133 - Chemical Release flashing Light NIRO 1000 - 384 113 183 154 - 79 - TWA Trail		NIRO	0930	•	388	106		158		113	,	200			
NIRO 1000 - 38: 113 183 15: - 79 -	-	AH7.681	5 Dec	פוופֿפֿ	394	100	18:	167	,	133	,	Chemical Release	Flashing Light		v
	ę,	итко	1000	•	38\$	113		154	,	79					

1 Use Letter to Show Performance: S - Success, P - Partial Success, F - Failure, N - None Used.

					TOVON		180	330			¥	AIR FONCE GEOPHYSICS LABORATORY	SLABORATORY	
	ŕ	1020		- 1	DANCE.	•	֡֝֟֝֓֟֝֟֝֟֓֓֓֟֟֓֓֓֓֟֟֓֓֓֓֟֟	200	PAY.					
	<b>→</b>	203		(SEC)	KW)	(DEG)	(KM) (SEC	(SEC)						
LINE	NUMBER	DATE (UT)	PLACE	PRED.	PRED.	PRED.		PRED.	WT. (LBS)	RECOY. ERV1.2				TOTAL
Š	TYPE	TIME (UT)	SCIENTIST	ACT.	ACT.	ACT	ACT.	ACT.		ACS1.2	EXPERIMENTS	SUPPORT SYSTEMS	REMARKS	PERF.
	AH7.676	5 Dec	Eglin	380	26	183	153	•	142	•	Chemical Release			S
)s	NIRO	1056	•	382	114	174	151	ı	68	•				
8,5	1-707.907-1	10 Dec	CRR			ı	158	,	•		Polar Disturbance			S
3	NIRO	0431	•	ı	•	,	991	•	-					
59	AH7.682	12 Bec	Eglin	394	100	173	166	,	131	-	Chemical Release			s
	NIRO	9530	•	390	921	160	951	,	901		1910			
=	1. Use Letter to Show Performance	See for	J	2000			9		1	O Deard of ACC	-1 ACE			

1. Use Letter to Show Performance S - Success,
P - Partial Success, F -- Failure, N -- None Used

2 List Type of Recovery and Type or Brand of ACS.

RANGE (AE) (KM) (DEG)         ALT (TIME (KM) (SEC)           PRED.         PRED. PRED. PRED.           ACT.         ACT.         ACT.           BO         '59         148         -           77         359         142         -           89         172         177         -           103         158         158         -           96         229         183         -           96         229         183         -           -         116         -           -         116         -           -         116         -           -         122         -           -         122         -           -         122         -           -         122         -           -         122         -           -         122         -           -         122         -           -         122         -           -         122         -           -         122         -           -         122         -           -         122         -	1					IMPACT		APO	APOGEE	3		<b>ד</b>			
NUMBER   N	- 1	-	970		TIME (SEC)	RANGE (KM)	AZ (DEG)	ALT (KM)	TIME (SEC)	LOAD					
	ш		DATE (UT)		PRED.	PRED.	PRED.	PRED.	PAED.		RECOY ERY1.2				TOTAL
13.726   7 Feb   WSW   994   900   77   359   142   -	_		TIME (UT)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	-	ACS1,2		SUPPORT SYSTEMS	REMARKS	PERF
AD7015-1         7 Mar         APGC-03         414         89         172         1.2         -         5         Internal one of the condition of the cond	-	Al 3. 726	7 Feb	WSMR	994	88	65.	148		379	S	IR-Good			
AO7.015-1         7 Nar         ApG-03         414         89         172         177         -         -         -         IO* Falling Sphere         -         O2-0H           MIRO         1651         faire         405         69         149         167         -         64         - </td <td></td> <td>Aero 150</td> <td>0531</td> <td>Walker</td> <td>÷006</td> <td>77</td> <td>359</td> <td>142</td> <td></td> <td></td> <td>S</td> <td></td> <td>,,,,,,</td> <td></td> <td>·</td>		Aero 150	0531	Walker	÷006	77	359	142			S		,,,,,,		·
NIRO   1651   Faire   405   69   149   167   .   64   .		A07.315-1	7 Mar	APGC-03	414	68	172	177		E,	,	10" Falling Sphere			<u>م</u>
MIRO   1809   Meeks   400   103   158   158   198   199		NIRO	1691	Faire	405	69	149	167		64	<u> </u>				
NIRO         1809         Meeks         400         103         158         158         -         98         -         And Disperse - Good         TW, Beacon - Good         Partial Data           NIRO         1810         Faire         355         37         235         111         -         98         -         MAD Ispenser - UNK         Long         Long         Long         Long         -         And Dispenser - UNK         Long         -         -         111         -         98         -         MAD Ispenser - UNK         Long         Long         - </td <td>~</td> <td>A07. J24-1</td> <td>7 Mar</td> <td>APGC-D3</td> <td>370</td> <td>103</td> <td>1,7</td> <td>158</td> <td><u> </u></td> <td>134</td> <td></td> <td>05 - ОН</td> <td></td> <td></td> <td>v</td>	~	A07. J24-1	7 Mar	APGC-D3	370	103	1,7	158	<u> </u>	134		05 - ОН			v
A07.016-1         7 Mar         APGC-D3         408         96         229         183         -         118         -         7" Sphere - Good         Th. Beacon - Good         Th. Beacon - Good         Partial Data           MIRO         1810         Faire         355         37         235         111         -         98         -         Mass Spectrometer - UMK         Low         -         -         -         116         -	,	NIRO	1809	Weeks	400	103	158	158	,	88		Sort A-ray	***		
ARD 1810         1810         Faire         355         37         235         111         -         98         -         Mass Spectrometer Meg. Innemittent         Coverage of the control of the con			7 Mar	APGC-D3	408	96	229	183		118		7" Sphere - Good	TM, Beacon - Good	Partial Data	۵
A07.902-9         7 Mar         MoPS         -         -         116         -         -         -         Meq. Ion - Partial Intermittent         Beacon - Lost Frack Off Lost Frack Off Inack	,	NIRO	1810	Faire	355	37	235	Ξ		86		NA UISpenser - GNA		MO	
NIRO         1837         Philbrick         -		A07.902-9	7 Mar	иорѕ	•	,		116		,		Mass Spectrometer Ned. Ion - Partial	Beacon - Intermittent	Partial Data Lost Irack Off	_
A07.902-5         7 Mar         WOPS         -         -         116         -         -         Mass Spectrometer           MIRO         1839         Philbrick         -		NIRO	1837	Philbrick	•			122						and On	
MIRO         1839         Philbrick         -			7 Mar	WOPS	•	,		35				Mass Spectrometer Neg. Jon - Good			s
A07.902-1u         7. Mar         WoPS         -         -         116         -         -         Mass Spectrometer           NIRO         1846         Philbrick         -         -         122         -		NIRO	1839	Philbrick				122	<b> </b> ,						
NIRO         1846         Philbrick         -         -         -         122         -		A07.902-10	7 Mar	WOPS		,	١.	116		,		Mass Spectrometer			\ - -
A07.016-2 7 Mar APGC-3D 454 106 155 225 . 68 - 7" Sphere - Good NIRO 1925 Faire 531 .39 134 246 . 54 -		NIRO	1846	Philbrick		•		122				neutral = 000d			
NIRO 1925 Faire 531 J9 134 246 - 54 -			7 Mar	APGC-30		106		225	ļ .	88	,				v
		NIRO	1925	-	531	65	<del> </del>	246		54					

1. Use Letter to Show Performance: S - Success, P - Partial Success, F - Failure, N - None Used.

NO. TY A07.(9 NIRO A18.2 NIRO N/T	NUMBER TYPE	1970			2	-								
	UMBER			TIME (SEC)	RANGE (KM)	AZ (DEG)	¥Χ	TIME (SEC)	LOAD					
	TYPE	DATE (UT)	PLACE	PRED.	PRED.	PRED.	PRED	PRED	WT (LBS)	RECOY ERY 1.2	310000	or Francis Facedario	0	TOTAL
		TIME (CT)	SCIENTIST	ACT.	ACT.	ACT	ACT	ACT	LG (IN)	ACS1,2	EXPERIMENTS	SUPPORT SYSTEMS	HEMAHRS	PERF
<del>'</del>	A07.024-2	7 Mar	APGC-30	370	. 08	102	150		134		Atmos, Composition Soft X-ray			٨
<del> </del>	80	1944	Week;	410	89	157	158		86					
	A18.298	9 Mar	CRR	540	223	140	298	•	150		Magnetic Field Particle Detector			'n
	<b>þ.</b> 4	0314	YanCour	529	220	146	596		120					
	A07.907-2	9 Mar	CRR		·	,	158	,	118	•	Elec Field and Structure			<i>∽</i>
NIRO	RO	0321	Sagalyn	,	•	,	366	-	•	,				
	A03.006-1	13 Mar	CRR	1200	,	180	203		554		Electron Ream			s,
12 Aer	Aero 150	0618	0'Ne111	1245	85	78!	200		•					
13 A07	A07.907-3	25 Mar	เสห		•	601	159	-	118	,	Elec Freic - N G	Door not Seleased		un
NIRO	9	1070	Sagalyn	405		110	167	•			Good Structure -			
14 407	A07.907-1	25 Mar	car	,	•	,	•			,	Electric Field			v,
NIRO	30	0320	Sagalyn	405	•	•	163		ı	•				
Al8	A18.903.3	4 Apr	ยาเย	602	362	170	357	•	319		EUV - No Data	7M - Los 9 31 6 Sec	Skin Track	L
88	S.A	1628	•	608		-	354	,	113	-		מפתרתא אי מת מפר	רמזר עוורפווומז	
A07	A07.913-3	12 Apr	նցյո	358	153	170	132	,	132		10" Falling Sphere		No Sphere Pelease	u
MIRO	62	1914	faire, Weeks	356	,	174	121		90		2			

1. Use Letter to Show Performance S - Success, P - Partial Success, F - Failure, N - None Used.

L					1010		Oak	200			AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABCRATORY	7
	10	1070		TIME	PANCE	40	ATOGEC ATT TIME	TIME	PAY					
	7	0/6		(SEC)	(KM)	=	(KM)	(SEC)	LOAD					<i>&gt;</i>
LINE	NUMBER	DATE (UT)	PLACE	PPP	PRED	PRED.	PRED.	PRED.	WT. (LBS)	RECOY ERY 1,2		24212V2 1000012	9 7 9 7 9 10	TOTAL
õ	TYPE	TIME (CT)	SCIENTIST	ACT	ACT.	ACT.	ACT.	ACT.	E.G.	ACS1.2	EXPERIMENTS	SOFTON STOLENS	DEMANNS	PERF
- 1	AH7.677	7 May	նցիսո	305	84	160	158		135		Chemical Release Diborane			,
<u> </u>	NIRO	0105	Rosenberg	185	13	160	641		88	k				
ž	407.901-2	7 May	Eq) tn	378	с,	161	153		141	,	Chemical Release			,
		0145	Rosenberg		è	150	153	•	106					
	A07.901-4	מווף אפאור	โคโาล	350	97	165	2,0		188	, 1	Chemical Release 84-84-84 Putts			_
<u>6</u>		070	Rosenberg	352	79	173	130	•	45	,				
	A07-901-3	21 May	Eglin	391	100	164	3,46	,	135		Chemical Release IMa	Strobe Lights		,
_	NIRO	1035	Rosenberg	387	132	191	151		100					
3	A07 901-1	21 May	Eglin	405	100	165	164	,	921		i iemicaj Rejease NA			,
5	NIRO	1106	Rosenburg	150	124	351	156	•	6/	•				
?	A07.901-5	22 May 14911n	61162	36.2	"	165	137	,	691	•	Chemical Release 2 BA			,
٤	NIRO	1112	3 (	373	7.1	160	140	,						
73	A04.004-1	1 Jul 72	WSMR	470	28	354	186		376	,	Map 11, 18		4 Sec Short Burn	
3	Aero 170	06.38	Wallace	•	6/	35.7	143		181	,				
,	A03.903-2	12 Aug	WSWR	0001	80	355	322		912	л	AO I	88F N.O.	We Data	_
t, 	Aero 150	1826	Hinter- egger	166	85		223	•	106					
-	1. Use Letter to Show Performance: P - Partial Success, F - Failure, N	how Perto ess, F - F	mance: S - S	S - Success, V - None Used		2 List 7	ype of R	ecovery	and Type	2 List Type of Recovery and Type or Brand of ACS	ot ACS			

					TOACM		330000	330			X X	AIR FUNCE GEOPHISICS LABORALURI	S LABONA LORY	
	7	1970		TIME (SEC)	RANGE (KM)	AZ (DEG)	ALT KM)	TIME (SEC)	PAY					
LINE	NUMBER	DATE (UT)	PLACE	PRED.	PRED.	PRED.	_	PRED	WT (LBS)	RECOY ERY 1.2		10000		101
Ö.	TYPE	TIME (UT)	SCIENTIST	ACT.	ACT	ACT.	ACT	ACT.	S S S S S S S S S S S S S S S S S S S	ACS1.2	EXPERIMENTS	SUPPORT STSTEMS	HEMAKKS	PERF
	A04.002-1	12 Aug	WSMR	1040	80	356	259		244	i.	£UV	ввес		~
52	Aero 170	1902	Minter- egger	1000	84	002	246	,	110					
	A16.010-3	21 Aug	CRR	,	•		679	,		•				_
92	BB IV	7110	•				99	,						
	A07.901-6	20 Nov	Eglin	380	26	150	153		148	•	Chearcal Release			s
27	NIRO	6122	Rosenberg		82	140	151		117		10.00 to 10.00			
.≈	A07.917-1	20 Nov	£glin	406	103	190	174	•	121		(hemical Release 196 S. Lithium			~
	NIRO	2219	Rosenberg		98	197	169	,	47	,				
	AT7.895	20 Nov	Eglın	348	9/	175	126	,	1,76	•	Neutral Mass spec			s
6. N	ИБЭ	2223	Philbrick	369	58	173	121		173	,	Sensor Saturated			
;	A17.396	20 Nov	Eglin	356	80	175	132		160		1 . Tor, Macs Spec			S
3	NIRO	2223	Philbrick	387	11	182	137		န်		Sect 'dary			
	A07.917-3	20 Nov	£g] in	404	103	150	153	,	122	ı	Chemic, I Release			~
E	0רנא	2226	Rosenberg	•	85	142	158	,	82	•	02 Singlet Belta			
2	A0".917-2	20 Nov	Eglin	396	100	200	991	,	128		Chemical Resease IMA & Lithium			*
!	NIRO	3226	Rosenberg	405	84	200	5.		26					
-	Jse Letter to Si	how Perfor	1. Use Letter to Show Performance. S - Success, P - Partial Success, F - Failure, N - None Used.	uccess, ne Used.		2. List T	ype of R	SCOVERY &	and Type	2. List Type of Recovery and Type or Brand of ACS	of ACS			

					IMPACT		APO	APOGEE	2		AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
	1	1970		TIME (SEC)	RANGE (KM)	(DEG)	α¥	TIME (SEC)	LOAD					
LINE	NUMBER	DATE (UT)	PLACE	PRED	PRED	PRED.	PRED.		(LBS)	RECQY ERY 1.2				TOT
Ŏ.	TYPE	CT	SCIENTIST	ACT	ACT.	ACT	ACT.	ACT	j Ž		EXPERIMENTS	SUPPORT SYSTEMS	HEMAHKS	PERF
	AD21,862	21 Nov	WOPS	,			10%	·	2.9	'	Plasma Diagnostics Electron Density		Reentry Velocity = 17,000 FPS	~
33	18 11	2356	•	•			301		 : {:					
;	A04.004-3	2 Dec	WSMR	086	80	358	200		343	٥	IR Harizons		ACS Out 0 225 Sec	s
इ	Aero	0832	•	096	82	349	190	<u>'</u>	<u>'</u>	s				
							i	!	! !	-				
							l							
							 	i   		-				
						;								
				ĺ	ļ	ł								
							!							
1	1. Use Letter to Show Performance	how Perfor	mance S - Success	CORS			0 000	7.0070	T bus	2 Let Tune of Because and Tune or Brand of ACS	of ACS			

2. List Type of Recovery and Type or Brand of ACS.

PRED         PRED         PRED           ACT         ACT         ACT           134         445         260           134         445         260           134         345         261           134         345         261           135         36         261           136         36         260           136         36         260           137         36         270           87         36         270           88         351         270           89         167         38           90         145         38           100         145         -           200         110         88           200         110         88           200         110         88		Ä	1971		TIME (SEC)	IMPACT RANGE (KM)	AZ (DEG	APOGEE ALT TIME		PAY		AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
Type         Time         Scientist         Act         Act         Act         Ind         Act         Act         Ind         Act         Ind         Act         Ind <th< th=""><th>LINE</th><th></th><th></th><th></th><th></th><th>PRED</th><th>PREC</th><th>PRED</th><th>PRED</th><th></th><th>RECOY ERY 1.2</th><th>2</th><th>on stone</th><th>37071130</th><th>TOTAL</th></th<>	LINE					PRED	PREC	PRED	PRED		RECOY ERY 1.2	2	on stone	37071130	TOTAL
AD7.01b-3         1. Jan         MS98         Jan         154         426         2.0         7.1         Derestty           AD7.01b-3         2.14         435         2.0         7.7         5.3         7. Sphere           AD7.01b-3         2.14         435         2.40         7.7         5.3         7. Sphere           AD7.01b-3         2.31         faire         0.10         -         2.7         5.3         7. Sphere           AD7.01b-3         1.2 Mar         4888         134         435         2.61         6.5         7. Sphere           AD7.01b-3         1.2 Mar         4888         134         3.6         2.61         6.5         7. Sphere           AD7.01b-3         1.2 Mar         4888         1.34         3.6         2.61         6.5         7. Sphere           AD7.01b-3         1.2 Mar         4888         1.34         3.6         2.6         6.6         7. Sphere           AD8.02b-3         1.2 Mar         4888         1.6         2.6         1.7         4.7         1.8           AD8.02b-3         1.2 Mar         4888         4.6         2.6         1.7         4.8         1.7         4.8         1.7	ş		TIME (UT)		ACT	ACT	ACT	ACT	ACT		ACS1.2		SUPPORT STSTEMS	AEMAANS	PERF
MIRQ         (741)         faire         6°6         -         77         63         -         77         64           MIRQ         2731         faire         496         134         543         7         63         -         77		<del></del>		MSMR	30°5	:: -	145	260	,	2		Density - 7 Sphere			,
AD7.019-2         8.3m         MSMIR         49h         134         48h         14h         48h         48h <t< th=""><td>·<b>-</b></td><td></td><td>2141</td><td>farre</td><td>۾ م</td><td></td><td>,</td><td>#7</td><td></td><td>£.\$</td><td>,</td><td></td><td></td><td></td><td></td></t<>	· <b>-</b>		2141	farre	۾ م		,	#7		£.\$	,				
MIRO		├──	8 Jan	WSMR	445	134	1,000	260		1,1		Density -			
AD7 015-3         12 Mar         MS8R         491         134         348         7 Sphere           AIRO         0413         Lare         -         184         7 Sphere         7 Sphere           ABC 7-933-3         12 Mar         MS8R         498         134         356         7 Sphere           ABG 032-2         12 Mar         356         7 Sphere         7 Sphere         7 Sphere           ABG 032-2         15 Mar         356         25a         -         7 Sphere         35c         25a           ABG 032-2         15 Mar         356         25a         -         7 Sphere         1 Sphere         1 Sphere           ABG 19-1         1500         41 Mar         35c         25a         -         7 Sphere         1 Sphere           ABG 19-1         1500         41 Mar         35c         25a         -         7 Sphere         1 Sphere           ABG 19-1         15 Mar         18 Mar			# FF	farre				Ę		<u>.                                    </u>		a tauta			
MIRQ         6413         faire         -         105         -         280         -         43         -         Pennate           A07.93; 3-3         12 %ar         498         134         35         5.60         -         66         -         Dennate           AIRQ         0685         1 aire         -         129         35         5.90         -         526         -         526         -         526         -         526         -         526         -         526         -         526         -         526         -         526         -         526         -         526         -         526         -         526         -         526         -         -         526         -         -         526         -         -         526         -<		<del>                                     </del>	1	<del></del>	: <del>61</del>	23.5	ž4S	73.		ź				der de Gelegenster und de Gelegenske de Gelegenske de Gelegenske de Gelegenske de Gelegenske de Gelegenske de	
A07.913-3         12 Yan         MSMR         498         134         356         1-54         1-7 Spmer.           NIRO         0655         Faire         -         123         356         1-61         -         1-3         -         <	~		0413	tarre		19,				~					
MIRO         0655         Faire         -         124         384         .61         -         h3         - <th< th=""><td></td><td></td><td></td><td></td><td>498</td><td>2.7</td><td>3.º</td><td>2,5,0</td><td></td><td>139</td><td></td><td>Denosity 71 Spher</td><td></td><td>Techean Pivitand Separation Entected</td><td>5</td></th<>					498	2.7	3.º	2,5,0		139		Denosity 71 Spher		Techean Pivitand Separation Entected	5
A04,002-2         1e Mar         ASWR         1060         36         36         250         -         742         F         EUV         Biotronoll           Aere 170         1900         Hinter-         1000         82         351         270         -	·*	NIRO		Farre		<u></u>	·		,	~				Janfrey of sea	
Apere 170         1900         Hinter-range         84         851         270         -         -         Ru Maria           Aps 019-1         19 Mar         6RR         6A2         -         150         33b         -         120         -         8u Maria           N/T         1734         Vancour         595         185         185         - <td></td> <td></td> <td></td> <td>ASMR</td> <td>1069</td> <td>ş</td> <td>1</td> <td>52.</td> <td>,</td> <td>97.</td> <td><u> </u></td> <td>411)</td> <td>Per contract</td> <td>n Osta (sra tone</td> <td>′</td>				ASMR	1069	ş	1	52.	,	97.	<u> </u>	411)	Per contract	n Osta (sra tone	′
A05-019-1 19 Mar CRR 562 - 153 350 - 123	<u>-</u>		1900	danter - ager	1000	ž	ž	06.7	,	,					
N/T         1744         Vancour         595         85         157         336         -         -         Proton detectors           A07.019-2         19 Mar (RR         393         79         150         -         180         -         e Man           NIRO         1745         Vancour         397         90         145         -	,	<del></del>	19 Mai	cRR	295		2	136	,	ξ:		Ru Mag Electron and		politant grants	,
A07,019-7         19 Mar         CRR         193         79         Pn0         164         130         2 Man         300         100         164         130         2 Man         300         100	· 	<u></u>	4.	Vancour	494	£.	3	ź	,	,		Proton Detectors		Carried Cause	
NIRO         1745         Lancour         397         90         145         .		A07.019-;	19 Mar		€63	٤	3	164		9-		t bection and		Searon Los O	/
A18.006-3 24 May CRR . 209 110 889 18-Airstow BBY 0526 Vancour 683 225 117 867	<u> </u>	MIRO	1745	) ancour	3.97	<del>.</del> ۶	<u></u>			,		<u> </u>		Skin frack for	
BBV 6526 Vancour 683 225 117 867	٥						ou.	483		,					,
	£	 RB.	9250	Vancour	683	-	 .:.	'ş́	,		,				

											A B	AIR FORCE GEOPHYSICS LABORATORY	SLABORATORY	
	ï	1971		TiME	IMPACT RĀNGE (KM)	AZ (DEG)	ALT TIME (KM) (SEC)	<del></del>	PAY					
ŠŠ	NUMBER	DATE (UT)	PLACE	PRED	<del></del>		PRED	PRED	(LBS)	RECOY ERY 1,2	EXPEHIMENTS	SUPPORT SYSTEMS	REMARKS	TOTAL
	404 304-2	3 Apr	HSVR	c Sign	5	9.4	ž	1	<b></b>	/	Persterline Sources	And the second s	"eaviest Aerobee	
σ·	4ero 170	0450	Walker	- in a	ï	<u>ş</u>	<u> </u>		2	,			farload funess -	,
	407 402-7 6 12.		Aute	120	ž	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	==		1 2		Mary Spec - 36 d			_
2	. E	91.10	Nav. 18.	<i>;</i>	÷	4	5		ŕ		Mass specificata			
:	A37 33c	7 N 2	A. T.	2		  -	:-		2		1 1			
-	0812	Ė	- / 11/2	.,	5	· · ·	÷	,	÷		Sel We har path			
_	A02,41 x-5	18 %	ACT		-,	3.	ź		<u> </u>		Junes to Spinite		Season 11 Sea	
:	021x	2. 2.	s day	-		#= ## ##	ź	<del>,</del>	3				troc Sphere	
	1161.04	, s, .;	1.7	<i>į</i> .	<u>;</u>	::	<u>-</u>		7		- 17 M. W.			,
<u>'</u>	ج ۾	-ére		ŧ	-	ž	:		<del></del>					
	7 - 72 m , 74	1; %4.	i d	ş	*	,	<u>.</u>		:2		****	S Sand Intenna		,
,	(2) 12 m	3 5		3.20	:	2	<u>.</u>		2	,				
	427 921-1 18 May		אסגר	: (M):	,	:	:		<u>.</u>		Pensity - Symere			,
<u>.</u>	, Y.;	35.06			2	·	-		1					
	40° M×4	, 5. 5.	1.7.4					<del>,</del>	-	H 244 MINISTER III	A CACA TO THE CONTRACTOR OF THE CACACACT	displayin manadah sepadan menangan dakada dakadan kecada	Table 1 to the state of the sta	
<i>≗</i> - —	8:8	7.		ì			,		.,	,				
]-	1 The Letter to Show Berformanne S	Day for	1	Succession	-	1		A			304 7	Militaria de l'America de la company de la c		

#### TOTAL PERF Radar (1) st 70 Sec Indicated perform-ance above pre-dicted AIR FORCE GEOPHYSICS LABORATORY REMARKS Ratt Launch 1st foamed firing SUPPORT SYSTEMS Chemical - Ro Good Spectro Good EXPERIMENTS Chemical - Fector chemical Grenade 194 - Good Wit Propagation Chemical Fethe Chaser Radio 184, 44, 1.1 Sond HI Star WT RECOY (LBS) ERY1.2 LG ACS1.2 ACS1,2 AZ ALT TIME PAY 2 ¥. 15 <u>::</u> ź. 165 453 'n ŧ £ PRED ACT PRED PRED ACT 156 ě. 158 <u>£</u> ž <u>"</u> 137 5. Ē ž <u> 3</u> ACT 15. ÷. 355 176 2 ? 371 2 PRED ACT , <del>(</del> <u>~</u> દુ 33 ŝ ·~ 3 3 191 TIME (SEC) PRED ACT . . . . . . 475 7 00. 089 SCIENTIST Harvey. PLACE 18 May Aptic M.S.M.R. 18 May ADTC 14 May ADIC 21 May AD16 16 May ADTL 88 DATE (UT) (UT) A04 004-4 29 Jun 29 Jun 1009 0305 0114 03.15 19.35 0160 1330 Alb 108-1 | 7 Jun 1971 A07 916-4 A07 917.4 2 A08 919-2 N/T AU7 918-3 A04.116-1 407 917-6 Aero 170 NUMBER Aero 170 TYPE 68 1V A NIRO 3180 SE 3 5

					IMPACT		A S	APOGEE		_	Y Y	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
	ři	1971		TIME (SEC)	RANGE (KM)	AZ (DEG)	¥¥	TIME (SEC)	LOAD					
LINE	NUMBER	DATE (UT)	PLACE	PRED.	PRED.	PRED.	PRED.	PRED.	WT. (LBS)	RECOY.		3000		1014
ြဲ	TYPE	T (C)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	S.G.	ACS1.2	EXPERIMENTS	SUPPORT SYSTEMS	HEMAKKS	PERF.
2,5	A07.017-1	21 Sep	WSWR	403	88	356	172		877	·	Density - No Good	TM LOS @ 270 Sec	Lost Experiment	
:	NIRO	1030	•	570	68	345	164		71.		Dupi ce i i con de la contra del la contra del la contra del la contra de la contra del la contra de la contra de la contra del la contra		Payload functions and Separation	
×	A07.9141	27 Sep	MSMR	403	88	356	172		148	•	Density - Good Browsetrabling			S
2	NIRO	1030	•	570	8.	900	169	,	211			=		
;	A08, 103-2	5 Oct	NOPS	550	162	153	280	-	160		Density - Photometers			S
	1/1	2030	Weeks	518	256	151	27.5		120					
28	A07.913-6A 6 Oct	9 001	NOPS	425	187	151	121		78		Density - Optical			'n
:	NIRO	2600	Reeks	430	200	•	187		83					
ş	A07.101-5	6 Oct	WOPS		119	860	211				Neutral Atmosuhere			~
	NIR0	0033	Philbrick	355	77		1.18		<u>.                                    </u>					
ç	A07, 102-4	6 Oct	WOPS		230	901	ž	,	٠		Density-7" Sphere		Partial Data	۵
	NIRO	0042	Faire	492	208		230	,	Ŀ					
	A07.913-6	6 Oct	MOPS	٠	220	01.1	112			1	Dersity-7" Sphere		Nominal Vehicle	<u>.</u>
15	NIRO	0103	Faire	568	æ		25		,				atere our minoria	
"	A07.101-6	6 Oct	MOPS	٠	121	860	113				Meutral Atmosphere			~
	NIRO	0245	Philbrick		109		611			,				

1. Use Letter to Show Performance: S.- Success, P. - Partiel Success, F. - Failure, N. - None Used.

					TOVE		, Cay	Γ	ſ		AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
	Ä	1971		TIME	RANGE	AZ	ALT TIM	w :	PAY.					
LINE	NUMBER	DATE (UT)	PLACE	PRED.	PRED.		PRED.	6	WT. (LBS)	RECOY.				TOTA
ġ Ž	TYPE	TIME	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	• •	ACS1.2	EXPERIMENTS	SUPPURI STSTEMS	REMARKS	PERF
	A07.902-6	10G 9	WOPS	•	121	960	113				Mass Spec - Medative Ion			^
Ξ.	NIRO	1200	Narc 1 S f	355	26		7							·
=	A07.101-3	6 Oct	l	•	121	01.1	È				Mass Spectrometer			л
5	X120	1233	Narcisi	55	109	10.	<u> </u>	. ,	-	*				<b></b>
<u> </u>	A07.101-4	1 ) Q q		,	124	10.7	ì				Mass Spectrumeter			٨
3	NIRO	1244	Narcisi	356	. 601		911			,				
•	A07 101-7	6 Oct	WUPS	,	124	90.	Ê				Mass. Spectroreter		Partial Buta	v.
ž	NIRO	1305	Marcisi	35.2	19		<del>;</del>	: •	· ·	N INTO SECURITY			:	
	403.910-1	36 Oct	MSMR		£	360	208		235	s	IR Arreliow			"
~	Aem 150	0331	0.xe11	000	્રજ	. 75.	<del>,</del>		:	•				
3	A04.001-5	29 Oct	HSWR	980	8	360	88.	,	775		IR - 41 Star			s
લ	Aero 170	1109	Halker	900	86	358	158			· ^				
9	A04.012-1	3 Nov	HSMK	1101	68	360	219		29K	ı	Atmos. OH = Good. Shy	BSFC - Farled Recovery - No 1st		G.
÷,	Aero 170	1230	Fenn	•	Z	350	749			,	Radiance - Good	Sequence		
Ş	A03.002-3 9 Nov	9 Nov	KSMR	066	68	355	213		822	s	WY - 600d	poog - 348		s
<b>;</b>	Aero 150	1900	Manson	1000	. 85	350	217		,	•				

F				_	IMPACT		APORFE	_						2
_	Ä	1971		YTIME (SEC)	RANGE (KM)	AZ (DEG)	ALT (KM)	<u>الرا</u>	PAY.					
	NUMBER	DATE (UT)	PLACE	PRED.	PRED.	PRED.	PRED.	PRED.	_	RECOY. ERVIZ				10401
	TYPE	TIME (CT)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	ağ S	ACS <sup>1,2</sup>	EXPERIMENTS	SUPPORT SYSTEMS	HEMAHKS	PERF.
	A03.002-3	9 Kav	WSHR	066	£	355	212		622	s	KUV - Good	APC - Good		·
; <u></u>	Aero 150	1900	III gg Ins	1000	83	349	213	and interest the same of the s		Minutelle ilkehite noi				
	A09.106-5	16 Nov	ADTC	440		991	<u>5</u>		is:		Chemical Release			^
<u> </u>	L/N	2218	Victory	930	: 5		991	****	100	P 1 1988 1 20 F 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
	A04.116-2	24 Nov	l		ŀ	-	191				Chaser 2 - 0x	Power responsible to the contraction of the contrac	· de de mantenir de la destrucción de mangra de mantenir de mantenir de mantenir de mantenir de mantenir de ma	~
?	Aero 170	9190	Huffman		*		. <b>.</b>	<del></del>		Hea to on name				
4	A07,102-J	10 Dec	CRR	1 B	166	9 =	35	Г	12		Density-7"Sphere	And William and Andreas and An	-constituence material and a constituence and a constituence of the constituence of th	<u> </u> _
	NIRO	1446		482	1.35	- 2-	. 152	: •	<u> </u>					
7	A08.102-2	30 pec	CRR	2	170	1.39	862		36		Density-10' Sphere	11p 0 49 Sec - R.G.	No 11p Release	-
	1/1	1624	2 000000	. 623	143	35	- 06.2	· ·	: : 2	•		0k		
	A07.216-1	ld Doc	CRR	à		2	555		2		Density-?" Sphere		kajan sprimajan sprimajan sprimaja sprimaja sprimaja sprimaja sprimaja sprimaja sprimaja sprimaja sprimaja spr	ľ
7. 2.	NIRO	1800		477	: 5	. 25	246		3					
اــــا									l					 <del> </del> -
<u> </u>							:	:	<del>:</del>	Total Section 1				

1972   Time   Manage   AZ   KMN   OEG  (KM   OEG  (KM	AT THE (KM) (SEC) (SEC) PRED.	PAY. LOAD WT. RECOV. (LBS) ERY1.2 LG. ACS1.2	\ <u>\</u>			
DATE (UT)         PLA'E         PRED.	<del>┃──┃</del> ──┃ <del>──┃</del> ──┃					
TIME (UT)         SCIENTIST         ACT.         ACT.         ACT.         ACT.           17 Jan         WSMR         980         50         360           0207         Stark/ Walker         900+         58         356           31 Jan         WOPS         452         220         105           1745         Faire         478         143         110           31 Jan         WOPS         336         123         10           2150         Narcisi         340         98         10           6 Feb         NOPS         336         129         10           1715         Narcisi         324         90         10           6 Mar         Poker         Flat         90         10	<del>├──-╟╾╼┢┈┈┤</del>		_	SMSTSVS FOOGOLIS	SAGVASG	TOTAL
17 Jan         WSWR         980         50         360           0207         Stark/ Halker         900+         58         356           31 Jan         WOPS         452         220         105           1745         Faire         478         143         110           31 Jan         WOPS         336         123         12           2150         Narcisi         340         98         6           6 Feb         WOPS         336         120         12           1715         Narcisi         324         90         17           6 Mar         Poker         Flat         90         17	50. 9 20 20 31 17		1,2 EAFERIMENTS	SOFTONI STSTEMS		PERF.1
0207   Stark/r   900+   58   356   1   31 Jan   W0PS   452   220   105   2   2   2   2   2   2   2   2   2	20 20 17	442 S	HI Star	Recovery, ACS		Ś
31 Jan WOPS 452 220 105 2 1745 Faire 478 143 110 2 31 Jan WOPS 336 123 1 5150 Narcisi 340 98 1 6 Feb WOPS 336 129 1 1715 Narcisi 324 90 1 6 Mar Poker	20 10 17	v)				
1745     Faire     478     143     110     2       31 Jan KOPS     336     123     1       2150     Marcisi     340     98     1       6 Feb     WOPS     336     120     1       1715     Marcisi     324     90       6 Mar     Poker       6 Mar     Poker	17	17	Density - 7" Falling Sphere		High Winds & Launch, 77.60 El	v
31 Jan WOPS 336 123 1 1 2150 Narcisı 340 98 1 1 6 Feb WOPS 336 120 1 1715 Narcisi 324 90 6 Mar Poker	20	55			for 80° Eff	
2150   Marcisı   340   98   1	20	185	Mass Spect.		Hi Winds @ Launch 77.30 El for 80º Eff	и.
6 Feb WOPS 336 120 1 1715 Marcisi 324 90 6 Mar Poker		86	,		No Timer Function	
1715 Narcisi 324 90 6 Mar Poker 6 Mar Flat		194	Mass Spect. Neg lon			s
6 Mar Poker	95	86				
	74	34	OH Photometer			s
Astrobee 1214 Grieder 86	86					
A30.205-4 9 Mar Poker 90	96	87	IR-Circular Variable Filter			S
	06					
A17.110-3 16 Mar Poker 71 029 142	12		IR. VSBL. Ion Comp. Electron Density.			S
Black Brant v A 1017 Ulwick 373+ 49 038 145	45		Particles			
A18.109-1 5 Apr Chill 495 197 110 258	88	497	Electric Field. Charged Particles		Door A Boom Problems	o.
Black Brant V C 0356 Sagalyn 482 118 135 248	83					

1. Use Letter to Show Performance: S - Success, P - Partial Success, F - Failure, N - None Used

											AIR	AIR FORCE GEOPHYSICS LABORATIONY	S LABORATIONY	
	•	1			IMPACT		APOGEE		, V 0					
	7	19/2		TIME (SEC)	RANGE (KM)	A2 (DEG)	ALT (KM)	TIME (SEC)	LOAD					
LINE	NUMBER	DATE (UT)	PLACE	PRED.	PRED.	PRED.	PRED.	PRED.	WT.	RECOY.		372220	0	TOT
ğ	TYPE	TIME (UT)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	LG (IN)	ACS1.2	EXPERIMENTS	SUPPORT STSTEMS	HEMAHRS	PERF.
,	A07.921-3	5 Apr	ADTC		89	180	159		139		Chemical Release			S
יס	M120	2345	Vickery	394	35	85	160		94		·			
5	A07.106-4	10 Apr	ADTC	394	35	175	159		82		Chemical Release			s
2	NIRO	2338	Vıckery		103	175	155		88					
:	A07.921-5	12 Apr	ADTC	410	82	175	177		911		Chemical - TMA		No Track	S
=	NZRO	2343	Vickery						16					
2	A07.107-1	13 Apr	ADTC	334	70	175	7:1		761		Mass Spect			n
i	NIRO	9100	Phi lbrick	306	128	187	120		001					
	AT7.894	13 Apr	ADTC	346	18	175	126		174		Mass Spect.			S
<u>E</u>	NIRO	9116		315	82	1.70	128		103					
	A08.013-1	13 Apr	ADTC		150	175	202		238		Chemical Release			s
7	Nike Toma'awk	0130	Poog	463	121	173	214		221					
:	A07.217-2	13 Apr	ADTC		121	175	185		85		Falling Sphere - 7*			s
<u>.</u>	NIRO	0145		460	93	161	<u>8</u>							
3	A07.215-1	13 Apr	ADTC		120	175	216		87		7" Falling Sphere			S
₽	NIRO	0400		496	110	186	219		29					
	2				]	1	1			<u>ا</u>				

1. Usv Letter to Show Performance: S - Success, 2 Ltst Type of Recovery and Type or Brand of ACS. P - Partial Success, F - Failure, N - None Used

ACT. ACT ACT ACT ACT ACT ACT. ACT	The second secon				_	IMPACT	-	APOGEE	355		_	AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
175   155   157   Che-real Reloase   Che-real Rel	1972 TIME RAI	TIME			ğχ.	_	AZ (DEG)		TIME (SEC)	LOAD					
ACT.         ACT         ACT         LG         ACE of control	NUMBER DATE PLACE PRED	PLACE PRED	PLACE PRED		ā	PRED.	_		PRED	WT. (LBS)	RECOY ERY 1.2		on store to contro	370 4 100	TOTAL
175         155         127         Chemical Release -           187         164         91         Roadar           175         160         133         TMA, uronador         No Radar           175         160         133         TMA         Imagair         No Radar           176         175         115         TMA         Imagair         No Radar           176         128         146         Cherical Releace         Imagair         Imagair         Imagair           177         224         234         Cherical Raleace         Imagair         Imagair         Imagair         Imagair           177         227.5         122         Photometers         Imagair         Imagair         Imagair         Imagair         Imagair           172         227.5         123         Photometers         Imagair         Imagair         Imagair         Imagair         Imagair           158         249         204         Manalyzer         Imagair         Imagair         Imagair         Imagair         Imagair           165         223         217         Manalyzer         Imagair         Imagair         Imagair         Imagair         Imagair           16	NO TYPE TIME SCIENTIST ACT A	SCIENTIST ACT	ST ACT		٩	ACT.	ACT.	ACT	ACT	E C	ACS1.2		SUPPORT STSTEMS	SARABAN	PERF
187   164   91   184	407.921-4 13 Apr ADTC	13 Apr ABTC	ABTC	47	e) G			155		127		Chemical Release -			v,
175         163         1784, uronadare         No Badar           175         175         115         1784           175         175         115         1784           175         125         125         125           175         227.5         227.5         122         Photometers           178         227.5         227.5         227.5         122           341         177         444         5         Celestal Factoreters         Argunestics           158         249         204         Electric field         Dispin         Argunestics           165         243         217         Argunestic field         Dispin         Argunestics           167         218         Argunestic field         Dispin         Argunestics	NIRO 0415 395		395	395				164		5					
175         175         175         176         176         176         176         176         176         176         176         176         177         177         177         177         177         177         177         177         177         177         178         177         178         179 <td>388</td> <td>ADTC 385</td> <td>ADTC 385</td> <td>388</td> <td>10</td> <td>Ī —</td> <td></td> <td>163</td> <td></td> <td>133</td> <td>l</td> <td>TMA, urenades</td> <td></td> <td>No Radar</td> <td>л</td>	388	ADTC 385	ADTC 385	388	10	Ī —		163		133	l	TMA, urenades		No Radar	л
175         175         175         175         175         145         Cherval Relation           176         148         116         Cherval Relation         Misanestics         Long Accellance           175         224         234         Cherval Ralation         Misaned           177         227.5         122         Misaned           177         444         5         Celestal Baikariunnal Recent           343         177         5         Rischrostatic           168         249         204         Misanetoreter           174         231         158.3         5           174         231         158.3         5           167         217         Misanetoreter         Ceresian           167         213         Misanetoreter         Ceresian           167         213         Misanetoreter         Ceresian           167         213         Misanetoreter         Ceresian	MIRO 0750			1		•	:	:		12					
175         155         145         Cherical Relation           176         148         116         Indental Relation           175         224         234         Cherical Ralasse, Aramand Relation           172         227.5         122         Photometers           341         1/7         444         5         Celestal Background Relation           343         177         5         Rametometer, Despin         Analyzer           174         231         158.3         5         Radiyzer           165         243         217         Magnetometer, Despin         Vive Valfunction           167         213         167.125         5         Electric Field           167         213         167.125         5         Electric Field	A07.921-6 13 Apr ADTC 410 101	13 Apr ADTC 410	ADTC 410		<u>0</u>	1	<del>                                     </del>	175		311		<b>4%</b> 1		No Radar	J)
175         165         165         Cherryal Releyon           176         148         116         Cherryal Kalease, Brancstick         Uond Accel           172         227.5         234         Cherryal Kalease, Branchurd         Photometers           341         177         444         5         Celestal Background           343         177         5         Analyzer           158         249         204         Magnetoreter, Branch         Desgran           174         231         158.3         5         Analyzer           165         243         217         Magnetoreter, Branch         Desgran         Vive Vallanction           165         243         217         Magnetoreter, Branch         Gunc, Jespin         Vive Vallanction           167         213         167.125         5         Electric Field         Gunc, Jespin	NIR0 6930	0.930	d to a factor or announced design or to the set plants and		<u> </u>		<del></del>			5	:				
176         148         116         Cherical Kalnase, Photometers         Protometers         Condition         Condition           172         227.5         122         Celestal Fackarnund Recovery, ACS, Photometers         Mannetereters         Mannetereter, Photometers         Mannetereter, Photometers           343         177         5         Mannetereter, Photometers         Just Polity           158         249         204         Mannetereter, Photometer         Just Polity           174         231         158.3         S         Analyzer           165         243         217         Mannetereter, Photometers         Gurc, Jespin         Vive Walfunction           167         213         Electric Field         Gurc, Jespin         Vive Walfunction	A07.106-2 15 Apr A01C 381 101	15 Apr ADTC 381	381		101	1		155		145		Chemical Reliaise			s
175         274         234         Cherroll fallosse, Photoreters         Oriental fallosse, Photoreters           167         213         167.128         S         Electric field         Oriental fallosse, Photoreters         Oriental fallosse, Photoreters         Oriental fallosse, Photoreters	NFQ 0045		118	118	31.8			371		116					
172     227.5     122     Trunocentrs       341     177     444     5     Celestal Background Recovery, ACS, Decorn       343     177     5     Marnetoreter, Decorn       168     249     204     Rectpostatic Decorn       174     231     158.3     5     Analyzer Analyzer       165     243     217     Magnetoreter, Gorro, Despin     Vive Walfunction       167     213     167.125     5     Electric Field	410.005-1 15 Apr 40TC 440 153	15 Apr 40TC 440	740		153			27.4		234		Chemical Kalasse.	บาลเทอระบะร	Long Accel	s
341     177     444     5     Gelestal Fackground Receivery, ACS.       343     177     5     Adaloge to the content of the conte	Palute 0103 Mansfield/ 465 144	Mansfield/ 465 Harpel 465	d/ 465	!	1 3	<del>;                                      </del>	<del>!</del> -	227.5		22	,	6.229		32.5	
343     177     5       168     249     204     Enctrostatic Shepin       174     231     158.3     5       165     243     217     Magnetoreter, Gurc, Sepin     Vive Valfunction       167     213     167.123     5	A04.004-7 15 Apr WSYR 980 76	15 Apr WSMR 980	WSWR 980	_	76	1		177		*? *? *}	'n	Celestal Fackaround	Recovery, ACS. Despin		^
249         204         Magnetometer, Electric Field         asmmodel           231         158.3         S         Analyzer           243         217         Magnetometer, Electric Field         Gunc, Despin         Wise Walfunction           213         167.125         S         Electric Field         Tive Walfunction	Aprobee 0522 Start/ 170 halker 968 72.5	Start/ 968 72.5	ker 968 74.5	74.5	74.5	;	1	177	:						
231   158.3   S   Analyzèr	A08.113-1 1 May Chill 484 161	1 May Chill 484	787		191			549		503			2, ro 8011. 245829		17
243   217   Magneto-eter, Gurc. Despin Time Walfunction   213   167,125   5   Electric Field   213   167,125   5	Mike Tomanawk 0823 Shuman 165 191	Shuman 165	155		191			231		158.3					
213 167.128 \$	A08.112-1 1 May Chill 476 116	Ch111 476	276		116			243		213		Magneto-eter.	Gurc, Jespin	The Malfunction	~
	Nike 0824 Vancour 443 97	Vancour 443	243		26	$\overline{}$		213		167.128		Electric Freic			

1 Use Letter to Show Performance S - Success, P - Partial Success, F - Failure, N - None Used.

nance: S - Success, 2. List Type of Recovery and Type or Brand of ACS.

NO. T A04.	-	1972		Г	MPACT	1 1	APOGEE	GEE	PAY.		•	AIR FORCE GEOPHYSICS LABORATORY	S LABORALORI	
		DATE			(KN)		(KW)	(SEC)		RECOV.				
	NOMBER	TT)	PLACE	PRED.	PAED.	PRED.	PRED	PRED.		ERYY.2	EXPERIMENTS	SUPPORT SYSTEMS	REMARKS	TOTAL
	TYPE	(TD)	SCIENTIST	ACT.	ACT	ACT.	ACT.	ACT.	j ĝ	ACS <sup>1,2</sup>				PERF.
<del></del>	A04.116-3 20 Jun		\$-31S						360		IR-UV-Chaser		No Aerobee iqnition	"
L	Aerobee 170	1645		8	8	692	တ							
	A18.903-4	15 մա	<b>Egl</b> ın		244	176	583		461		30A	SDC Recovery	Break up at 11 Sec.	<u></u>
Blac Brar	Black Brant V B	1712	Annihant will have not det up treeting	7.7			,		154					
A21.	A21.0011-1 28 Jul	I	Such						75		cditives	The state of the s	Data thru Blackout.	s
	Trail Slazer II	1859							27					
	A04.004-8	18 Aug	WSWR	1009	20		178		438.5		IR Stellar Sources	ACS. Yo-Yo	Extended Expansion Cone	s
28 Aero 17	Aerobee 170	1021	Walker	+0001	69		169			S				
	A04.104-1 2	23 Aug	<b>WSMR</b>		20		268		242.5	14-	Solar XUX	Recovery. SPC	No 1st Sev.	~
29 kero	Aerobee 170	2104	Heroux		69		268					· ·		
	A17.110-2 2	24 Sep	CRR			124	126		995		Impedance & Langmuir Probes-8PA-Gerdien	The second property of the second sec	Into Absorption Event	٠,
30 Blac Bran	Black Brant V A	1405	Ulwick	345	66	124	126.6	and the state of t	The state of the s	Name of Street, Street	Condenser- Particle Counters			
31 A17.		25 Sep	CRR				125		578		Impedance & Langmuir Probes-RPA-Photo-		Into Quiet Sackground	
	Black Brant V A	1924	Ulwick	350	·8	108	126				meter Gerdien Con- denser, Particle Counter			
73	A04.116-4 1	11 Oct	MTR				161				Chaser			۸
	Aerobee 170	1131	huf fman				151							

Use Letter to Show Performance: S – Success,
 P – Partial Success, F – Failure, N – None Used.

		TOTAL	PERF.	S		S		S		s		S		<b>L</b>		<b></b>		s	
S LABORATORY		2	REMARKS											Tomahawk Burn thru		Sphere not Released			
AIR FORCE GEOPHYSICS LABORATORY		077 L & 077 C & 077 C C C C C C C C C C C C C C C C C C	SUPPORT STSTEMS											ЫI		W1			
AIR			EXPERIMENTS	Chemical Release		Chemical Release. HI Bal Sphere		Chemical Release COS-NA		Chemical Release		H18AL Sphere		Chemical Release		10" Sphere	•	IR Stellar Sources	
		RECOV. ERY1,2	ACS1.2										: ; ;						
	LOAD	WT. (LBS)	S. S. S.	140	38	103		135	90	06	88	9		230	122	180	103	439	
APOGEE	TIME (SEC)	PRED.	ACT.																
APO	ALT (KM)	PRED.	ACT.	162	751	192	129	162	157	203	162	203	219		15		200	177	179
	A2 (DEG)	PRED.	ACT.	1.2	152	152	155	154	154	158	150	140	191	142	100 II had and 100 Miles		153		358
IMPACT	RANGE (KM)	PRED.	ACT.	901	100	115	92	109	103	123	132	138	107		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		114		70
	TIME (SEC)		ACT.		444				426	452			605				465	6001	÷006
		PLACE	SCIENTIST	ADTC	Rosenberg	ADTC	Rosenberg/ Faire	AOTC	Rosenberg	ADTC	Rosenberg	ADTC	Faire	ADTC	Good	ADTC	Faire	WSMR	Walker
	1972	DATE (UT)	TIME (UT)	31 Oct	2332	31 Oct	2351	) Nov	0104	1 Nov	0130	Nov :	0933	5 Nov	2345	6 Nov	0004	4 Dec	0220
	ä	NUMBER	TYPE	A07.106-1	NIRO	A07.105-6	NIRO	A07.105-5	NIRO	A07.105-4	NIRO	A07.216-2	NIRO	A08.105-10	Nike Tomahawk	A08.215-2	Nike Tomahawk	A04 "34-9	Aerobee 170
		LINE	ġ	;		7	\$	,	e e		98		37		eee		33		6

1. Use Letter to Show Performance: S - Success, P - Partial Success, F - Failure, N - None Used.

					IMPACT		APO	APOGEE	:			אוא דטחטב בבטרחדוטוטט באםטאאוטאן		
1	Ĭ	1972		TIME (SEC)	RANGE (KM)	(DEG)	ALT (KM)	TIME (SEC)	PAY. LOAD					
į	NUMBER	DATE (UT)	PLACE	PRED.	PRED.	PRED.	PRED.	PRED.	WT. (LBS)	RECOY. ERY 1.2	L			14.05
ν. O	TYPE	TIME (UT)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	S.G.	ACS1.2	EXPERIMENTS	SUPPORT SYSTEMS	REMARKS	PERF.
-:	A18.006-5	5 Dec	CRR	864	526	167	195		200	S	IR Airglow	Recovery,		S
-	B.ack Brant V C	0090	Stair			691	194.4			S				
54	A30.205-1	e Dec	CRR	244	90		98		32		IR Jonospheric		No Data	
	Astrobee D	0532	Ulwick				22							
43	A09.107-2	7 Dec	CRR	394	128	911	791		200		Mass Spect.	Despin		S
	Ute Fomahawk	0545	Philbrick	410	154	86	E			S				_
-	A07.307-3	7 Dec	CRR	436		01.1	200	Ī	8		7" Falling Sphere			~
4	NIRO	0707	Faire	484	36	105	210							
	A30.205-2	9 Dec	CRR	244	æ		96		35		18 lonospheric Characteristics		Partial Data	L
Ç	Astrobee D	0030	Ulwick				2						Release	
7	A07.107-3	11 Dec	CRR	358	79	104	125		175		Polar Neutral			s
	NIRO	0030	Philbrick	386	73	91.	136							
,	A07.301-1	11 Dec	CRR	436	120	91	200		29		7" Faliing Sphere			s
	NIRO	0039	Faire	528	107	Ę	255							
					-									

					IMPACT		APOGEE	Γ			AIF	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
	1	1973		TIME (SEC)	RANGE (KM)	(DEG)	ALT KM)	m C	LOAD					
LINE	NUMBER	DATE (UT)	PLACE	PRED.	PRED.	PRED.	<u> </u>	<del>; —</del>	_	RECOV. ERV1.2				
ğ	TYPE	TIME (UT)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	S) (S)	ACS1.2	EXPERIMENTS	SUPPORT SYSTEMS	REMARKS	PERF.
	A30.205-5	21 Mar	PFRR			340	06		33			S Band	AGI Set at 275°. Tumble After Mose	~
	Astrobee D	1010				317	7.8		25				Clect @ 55	
٠	A18.006-2	22 Mar	PFRR		961	47	194	<u> </u>	740	S	Auroral Emissions	ACS, IM, Recovery	No Tin Close	~
·	Black Brant V	1212			207	95	183		051	S				
Ĺ	A10.205-2	24 Mar	PFRR	431	138	047	214		235		Auroral Characteristics	The state of the s		v
·	Parute Jomahawk	0032		462	91.	049	213		:					
	A18.205-1	26 Mar	PFRR		261	47	188		740	s	lonospheric Characteristic	ACS-Single Axis, Despin, Recovery		<u>~</u>
7	Brant VC	2338			214	52	181	<u> </u>	091	S				
		26 Mar	PFRR		86	47	235	<u> </u>	212		10" Falling Sphere IMA Irail		Tip Release Failed	۵
n l	Parute Tomahawk	2338			57	50	235		! !	:				
`	A30.205-6	6 Apr	PFRR						33		Enhanced OH			S
•	Astrobee D	0845							25					
	A09.209-1	16 Apr	HSMR		001	35	175		505		Photometers .		Full Moon	~
`	Ute Tomahawk	1004	Weeks		137	344	176	-	122.9		Photometers - OH			
· ≈	A09, 162-1	16 Apr	WSMR	447	7.7		211		165	-	Photometers - $0_3 - 0_2$		Sunrise	S
•	Ute Tomahawk	າາຣ໌ຮ	Weeks	466	103	321	509	<del></del>	131.9	***	Geiger X-rav			
÷ 	lse Letter to SI - Partial Succ	now Perfor ess, F - Fa	1. Use Letter to Show Performance. S Success, P Partial Success, F Failure, N None Used	ccess, e Used	14	C List J	pe of Re	2. List Type of Recovery and Type or Brand of ACS.	d Type o	r Brand o	If ACS.	The same of the sa		

											AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	$\widetilde{\mathcal{I}}$
	•	0		_	IMPACT			APOGEE	PAY.					
	7	5/61		(SEC)	RANGE (KM)	AZ (DEG)	ALT (KM)	(SEC)	LOAD					<i>*</i>
LINE	NUMBER	DATE (UT)	PLACE	PRED.	PRED.	PRED.	PRED.	PRED.	WT. (LBS)	RECOY ERY()				10101
Š.	TYPE	TIME	SCIENTIST	ACT.	ACT.	ACT	ACT.	ACT.		ACS1.2	EXPERIMENTS	SUPPORT SYSTEMS	HEMARKS	PERF
0	403.911-1	27 Apr WSMR	WSMR	380	21	356	61.1		376	s	uv Absorption	Recovery, Early Termination,	UV Absorption Failed	<u> </u>
`	Aerobee 150	0453	L 28 Janc		27.	15.7	121		156	S		Despin		
2	A44.320-1	25 May	Natal				909		007	S	IR Radiometer	Despin, ACS		٧,
2	Castor Lance	1520	Walker	79.5	431	103	596		61	s				
	A09.210-1	12 Jun	เรล	339	106	011	124		270		Mass Spect., Scint,	Despin		°
Ξ	Ute Tomahawk	00 6091	1609 50 Warcist	370	104	2	133		116	\$	and in this in			
	A09.210-2	13 Jun	CRR	340	360	110.8	125		270		Mass Spect Plasma Probe,	Despin	***************************************	,
~	Ute Tomahawi	1617:40	1617:40 harcisi	368	86	18.5	131	-	116	ر د	Se int.			
:	416.000-1	9 Aug	MOPS	837	919	130	625		061	1	HI Rate Midas Conversion			~
2	88 14 2 Modi	2012	Mansfield	798	607.5	140	615.5	1	80.	!				
	403.211-1	10 Aug	MSMS	933	8	342	1:2		882	s	Bremstrahlung	Recovery		s
7	Aerobee 150	1052	Cohen	•006	06	355	891		125					
:	A09.214-1	das (t			80	347	751		237		Vehicle Potential Stabilization		Main Exp No Data	
≏	Ute Forahawk	0319	Sherman		08	347	. 091	:	125	of the party ables a party of				
ž	A09.312-5	18 Sep	FRF		107	53	<u>~</u>			v	Polar Disturbed Ionosphere	Ranne y		S
?	Ute Tomahawk	1550	Nadile		115	35	128		120					
٠.	1. Use Letter to Show Performance. P - Partial Success, F - Failure, N	how Perfor	rmance. S - S.	S - Success, - None Used		2 List T	ype of R	ecovery a	and Type	2 List Type of Recovery and Type or Brand of ACS.	of ACS.			

1. Use Letter to Show Performance. S - Success, P - Partial Success, F - Failure, N - None Used

		101	PER	^		S		-		~		s		<i>_</i>		٠.		<u>~</u>	
		SXCVNSC	nemana.					Power & Door Problems				Low Vehicle Perform Poor Sadar Track							
AIR FORCE GEOPHYSICS LABORATORY		3031373 10000113	SOLLONI STATEMS	Recovery														13	
AIR		24050103043	CAPENIMENIS	Polic Disturbed Jonosphere		7. Sphere		Ver 0 5. Verav		/" Sphere		IR Betector. Radioreter		IR Detector. Radiometer		IR Detector, Radiometer		Chemical Release.	
		RECOY ERYIZ	ACS1.2	s															
	PAY.	WT. (LBS)	SE SE	250	120	83	3	163	125.5		52	32.5		32.5		32.5		021	55
	SEE TIME (SEC)	PRED.	ACT.																
	ALT TIN	PRED.	ACT.	111	129	5.525	522	292	287.5	555.5	233	113	53.2	113	107	113	105	173	167
<b>-</b>	AZ (DFG)	PRED.	ACT.	62	32	06	æ	06	90.6	06	106.5	355		355		355		160	
	IMPACT RANGE	PRED.	ACT.	107	111	85.3	201	184	157.5	85.3	67	72		21	4	7.2		001	
	TIME (SEC)	PRED	ACT.		372	160	506	526	512	160	511	336	240	336	335	336		905	
		PLACE	SCIENTIST	PFRF	Nadi le	Katal	Faire	Ratal	Weeks	Ratal	faire	KSMR	Ulwick	MSMR	Ulwick	KSKR	Ulwick	ADTC	Rosenbery
	1973	DATE (UT)	TIME (UT)	das 81	17.51	ge Sep	1600	26 Sep	1942	27 Sep	0427	3 Oct	0140	3 Oct	7220	3 3ct	0090	18 Oct	2345
	16	NUMBER	TYPE	A09.312-4	Ute Tomahawk	A07.306-2	итво	A10, 306-1	Pajute Ibmahawk	A07.306-3	NIRO	A30.311-1	Astrobee D	430.311-2	As trobee D	A30.311-3	Astrobee D	A07.105-1	NIRO
		LINE	Š.	-		2		o.	_		23		7		7	_	63		3
-																			

1. Use Letter to Show Performances: S -- Success, P -- Partial Success, F -- Failure, N -- None Used.

L						-		***************************************				AIR FURCE GEOPHYSICS LABORATORY	SLABORATORY	7
	H	1973		TIME	RANGE		₹:	APOGEE TIM:	PAY.					
LINE	NUMBER	DATE	PLACE			PRED.	.1 .	~	<del></del>	RECOY.				, [
Ş	TYPE	TIME	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	$\cdot -$	ACS1.2	EXPERIMENTS	SUPPORT SYSTEMS	REMARKS	PERF.
, ,	A08.105-11 19 Oct	19 Oct	ADTC		121	160	261		556		No Release, Photometers	H1		S
3	Nike Tomahawk	0000	Rosenberg/ Good				506	_	122				·	
36	A09.301-3	19 Oct	ADTC		137	160	522		133		Chemical Release,	Ŧ		~
3	Ute Toerahawk	0050	Rasenberg	) на применения по	-		822		72					
2,	A07.105-2	19 Oct ADTC	ADTC	406	100	160	173		120		Chemical Rulease, IMA Puffs			S
	NIRO	0020	Rosenberg				173		55					
	A08.005-2	19 Oct ADIC	ADTC		126	091	140		360		Chemical Release. BA			S
ę	gike Tomahawk	1125	Rosenbery				146		126					
	A09.106-3	19 Oct A010		415	158	160	185		170		Chemical Release,	IN, Gyro		~
82	Ute Tomahawk	2342	Rosenberg				176		98		Al. Vapor			
	A08.105-12 19 Oct		ADTC		127	160	150		335		Chemical Release, IMA Point	X.		~
3	Nike Tonahawk	2353	Rosenberg	A Nilson for formation and an annual state of the state o		1	160		66					,
7	407.105-3	20 Oct	ADTC	420	135	160	185		107		Chemical Release - Tetra Ethyl Lead.			s
<del>ة</del>	NIRO	2343	Rosenberg				184		83		Lithium			
-	A10.207-3	21 Oct	ADTC	449	118	160	505		292		Chemical Release.		No Ion, Ignition	۱.
ห้	Palute Tomahawk	7000 000	Rosenberg				18		142		Density - 7" Sphere			
1	1. Use I arrae to Show Berform	Des Co.			ľ		֓֡֜֜֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓			¥				

			TOTAL	PERF	\$		_		~		\sigma		٤.					
SLABORATORY			374444	HEMAKKS									BCR.A IN Failed at t 0., IM on at	off at Temk, 8.0.	Gyro quit at 95 sec.			
AIR FORCE GEOPHYSICS LABORATORY			274	SUPPORT SYSTEMS					Recovery, Despin		Authoriteit de finistra de generale mateurale des descriptions de la finistra de la finistra de la finistra de							
al <b>e</b>				EXPERIMENTS	Vtf Propagation		VLf Propagation		AN3		Reentry Microwave Physics	•	Mass Spect Photometers -	0, 0,				
IMPACT APOGEE PAV.		RECOY.	ACS1.2				A KINESHALI MASA MASA MASA MASA MASA MASA MASA MAS	v:	S				40				-	
	[	LOVO	WT. (L.BS)	LG.	176	98	176	86	273	 : 22	73.5		250					:
	366	TIME (SEC)	PRED.	ACT.						:				•				***
	APO	ALT (KM)	PRED.	ACT.	674	609	674			232		30.4	-	101				 · · · · · · · · · · · · · · · · · · ·
IMPACT APOGEE	AZ (DEG)	PRED.	ACT.	180	185			354	359				i				:	
	RANGE (KM)	PRED.	ACT.	456	47.1	456		87	. 78								:	
	TIME (SEC)	PRED.	ACT.		820	-	784	1000	•006				T T T T T T T T T T T T T T T T T T T					
		PLACE	SCIENTIST	ADTC	Lewis	ABIC	Lewis	WSMR	Heroux	WOPS	Rotman	CRR	Philbrick/ Weeks				10 - 10 HONES HEROMAN IN 100 MINUS ( H	
		1973	DATE (UT)	TIME (UT)	24 Oct	0305	25 Oct	0307	2 Nov	1730	6 Dec	1759	10 Dec	1930				* * * * * * * * * * * * * * * * * * *
		15	NUMBER	TYPE	A16.313-1	Black Brant IV A	A16.313-2	Black Brant IV A	A04.104-2 2 Hov	Aerobee 170		Trafl Blazer	A09.107-4	Ute Tonahawk			-	Printers of the latest of the
			LINE	ģ		33	2			35	_	es .		7				

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(O)			1410	PERF.	s		v		_		c.		S		S		s		s	
LABURATORY	\$	7		HEMAHKS					No 2nd Staye		46 Sec Burn									
AIR FORCE GEOPHYSICS LABURATORY			27124070 40000	SUPPORT SYSTEMS			Recovery, ACS				Recavery, ACS,		Coherent Beacon		Recovery, ACS		Recovery, AGS		Recovery, Despin	
8I <b>V</b>			4	EXPERIMENTS	IN S Track Test L Band Test		CVF.		Density-HI Bal		IR Stellar Sources		Density		няіз		MUTI.		Mass Spect	
			RECOY.	ACS1.2			v	S			S	s		:	s	55	S	s	s.	S
	PAY.	LOAD	WT. (LBS)		92		725	146	133		78.3	215	175	75	840	172		!	272	3
	GEE	TIME (SEC)	PRED.	ACT.												100				
	APO	S) (KM) (SEC)	PRED.	ACT.		16	190	200	211	2	274	Ξ	181	190	180	-83	183	195	126	621
	Ì	DEG DEG	PRED.	ACT.	040	02.7	047	850			350	355	356	349	040	047	047	047	170	123
	MPACT	RANGE (KM)	PRED.	ACT.		1.3					53	91	80	113	196	142	36	66	Ξ	109
		TIME (SEC)	PRED.	ACT.		162	428	440	426	153	1020	700		455	416	455		<del></del>	347	390
			PLACE	SCIENTIST	PFRF	Ulwick	PFRF	Ulwick	PFRF	Faire	WSMR	Walker	MSMR	Geary	PFRF	Stair	PFRF	Ulwick	CRR	Nircisi
	,	19/4	DATE (UT)	TIME (UT)	8 Feb	0416	14 Feb	0707	14 Feb	0744	16 Feb	0833	16 Feb	1003	21 Feb	9160	25 Feb	0738	28 Mar	0405
	•	<b>1</b>	NUMBER	TYPE	A30.311-4	Astrobee	A18.006-4	Black Brant YC	A09, 307-3	Ute Tomahawk	A35.191-2	Aerobee 350	A09, 400-1	Ute Iomahawk	16-1	Black Brant V C	A18.219-1	Black Brant V C		Ute Tomahawk
			LINE	o.	-	-	_	~	,	~ ~	-		_	n	7		_	^		rs

1. Use Letter to Show Performance: S. Success.
P. Partial Success, F. Failure, N. None Used.

L					TO A COLOR			2,00		_	AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
	Ä	1974		TIME	HANGE	AZ	ALT TIME	A LEGIS	PAY.					
L	NUMBER	DATE (UT)	PLACE	PRED.	PRED.	PREC	PRED.	PRED.	WT. (LBS)	RECOY.				
Š	TYPE	E CT	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	1	ACS <sup>1,2</sup>	EXPERIMENTS	SUPPORT SYSTEMS	REMARKS	PERF.
	A09.303-1	3 Apr	CRR	386	ş	92	156		012		Switched Mass Spect. Despin	Despin		s
<u> </u>	Ute Tomahawk	0347	Narcist	50t	118	17.2	162	***************************************	611	S	Counter, Plasma Freq. Probe			
2	A09,303-4	3 Apr	CRR		113	1 70	126		920	S	Neg. Mass Spect.,	Recovery. Despio	tost Beacon +2 sec.	s
2	Ute Tomahawk	1918	Narcisi		105	122	123		1.45	×				
_=	A09.303-2	9 Apr	CRR	386	29	160	162		210		Mass Spect , Scintilation,	Despin		~
=	Ute Tomahawk	1250	Narcisi	257	. 56	\$0¢	169	:	145	s	Plasma Probe			
	A30.413-1	71 Apr	PFRF	288	Ę.	52	£		3		Gerdian Cond .	AND AND THE PARTY OF THE PARTY	IM XMIR Failed, Janition Delay -	-
2	As trobee 0	2338	Ulwick	284	49.5	1.9	3	:	3	de 6 de depit o 1 al 2			14 sec.	
	430,413-2	12 Apr	PFRF	330	75	52	911		2		Y, F			s
<b>:</b>	Astrobee 0	2325	Ulwick	347	: 27	8	. 621		22	,				
:	A10.312-3	18 Apr	PFRF	906	16	5,7	170			S	Retard Ind Potential, Recovery L-Field, Photometer,	Recovery	***************************************	~
=	Pajute Torohawk	0180	STATES.	526	3	. ś	\$8.			H 100 to 10 to 100 to 1	Cleetrostatic Analyzer			
9.	A04.208-2	22 Apr	WSHR			<u> </u>	622		├	J.	CBY	BBPC.		, ,
2	Atrobee 170	1902	Heroux	n nean magacinn	4 . 6	:	212		- MARCO 1 III O GARIO	NH 1800000010 0 1101 at				
	A07.105-7	29 Jun	MOPS	_			187				[0]		PARTITION OF THE PROPERTY OF THE PARTITION OF THE PARTITI	^
ع ا	KIRO	0110	Rosenberg/ Best	474	120	121	188							
<b>-</b> -	1. Use Letter to Show Performance; S. P Partial Success, F Failure, N	NOW Perfor	mance: S - Su ailure, N - Non	- Success, None Used,		2. List	Type of E	ecovery.	and Type	2. List Type of Recovery and Type or Brand of ACS.	of ACS.			

1. Use Letter to Show Performance: S - Success, P - Partial Success, F - Failure, N - None Used,

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		-			MPACT		Cav	990		_	AIF	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
	~	1974		SEC	HANGE	AZ	ALT TIME	TIME	PAY.	·				
LINE	NUMBER	-	PLACE	PRED.	PRED.	PREC	PRED.	PRED.	WT.	RECOY	THE CHARLES SHOWING SH			
Š	TYPE	TIME (CT)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	S.S.	ACS1.2	EXPERIMENTS	SUPPORT SYSTEMS	REMARKS	TOTA PERF.
-	A04.208-1	29 Jun	x0rs	215	120	0+1	223		270	'n	t uv	Recovery	Flat Spin-Some	ľ
•	Aerobee 173	1945	Ha11	\$0\$	12	1.35	112						Data Loss	, 
5	A09.213-2	29 Jun	NOPS	583	791	091	153		Ę		Reutral Mass		IIP Eject 0	ء
	Ute Tomahawk	2000	Philbrick	126		150	91		:				200 07	
	A08.306-4	79 Jun	MOPS	ŝ	198	130	152		\$22		10" Sphere-F2L			ļ
6	Nike Temahawi,	2033	faire/	450	:		ear	:	:		r no tomo ters			n
:	A08.207-2 29 Jun WOPS	29 Jun	WOFS				189		25.7		No Rebease,			ء
≎	Nike Tomahawk	2105	Go lomb/ Good			Mitplife als strength	186	1	#1.0 - PROSESS 1114		same and constant			-
	A09.301-1 30 Jun HOPS	30 Jun	MOPS	125	=	146	ē		991		ka, ima			S
2	Ute Torahawk	9010	Rosenberg		THE REAL PROPERTY.	• etheorem	203	i		:				
	409.001.3	30 Jun 100PS	KOPS	393	122	e	291		506		lon Mass Spect.		No 2nd Stage	
22	Ute Tonaham	0111	Narcist	THE PERSONAL PROPERTY.	Appropriate the County	H 1000-101100-00-00			-	And the special displayer			Iquition	-
	A09.301-2	30 Jun	SHOPS	427	2	120	<u>=</u>		991		9A, TMA	Merchanic Control of the Section of	Exp. # 26 Sec.	_
63	Ote Tomahawk	0126	Rosenberg	MONTH OF THE PERSON OF THE PER		teller under teller		n · · · · · ·	THE PERSON NAMED IN COLUMN 1					
7.4	409 101-5	30 Jun	HOPS	1	240	1.30	187		156		Na/Li-Point Dischama	stiles ji ern-fuelt pratitien krouweltsielennen. Drumeinklaum	TMA failed	-
	ULe Tomahawa	0345	Rosenberg	. 53	212	123	201		<del>:</del>	100	INA			
-	1. Use Latter to Show Performance: S	ow Perfor	Marca S Circan	**************************************	4		1	***************************************	-	-				

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	AIR FORCE GFORMYSICS LABORATORY	
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	•	440			IMPACT		٦٢	J. E.	PA¢					
	<b>→</b>	13/4		(SEC)	HANGE (KM)	(DEG)	(KW)	(SEC)						
3	NUMBER	DATE (UT)	PLACE	PRED.	PRED.	PRED.	PRED.	PRED.		RECQY. ERY 1.2	CYDEBINEAT	SMATSYSTEMS	REMARKS	TOTAL
ç.	TYPE	TIME (UT)	SCIENTIST	ACT	ACT	ACT	ACT	ACT	ÜŞ.	ACS1,2	CATERIMENTS	Sorrior Constitution		PERF.1
	103.207-4	30 Jan	x0PS	377	220	8	33		1:2		7" 418A.			٧.
25	Ute Tunanawk	0558	Rosenberg/	225	270	132	33				~hotometers			
4	208.207-1	30 Jun W05	Sc0M	123	167	ક	681		254		No Release. Photomaters			v,
g g	Nike Tomanawk		6010mb/ 6000	435		ş	185							
] :	A09.301-4	na Jen	MOP5	427	<u>동</u>	3.	188		158		JMA, Protometers. Resonance Flr.		Photometers \$ Resonance Flr.	о.
27	Ute Tomahawk	0730	Rose./Gal./ Hend	:, :,		135	178						Faried	
,	A10.301-6	30 Jun	wops	137	551	ી કેઈ	705		252		TMA-5A. Protometers			<i>~</i>
χ,	Farute Tomaha*k	0835	405e./Gol / Good		21.5		6.							
:	A09.001-4	30 Jun	SdOm	<b>3</b>	221	120	162		907		Ion Mass Spert.		Vehicle Malfunction	ŧ,
Pi.	Ute Tomenewk	0845	Narcis:				7.4							
;	A10.239-2	30 Jun	*O#S	172	523	05.1	235		506		7" PZL. Photometers			ω
3	Paiute Tomahawk	1001	Faire/ Weeks	510			523							
,	A09.105-9	30 Jun		757	122	150	187		157		Na-L.			
5	Ute Tomahawk	1255	Rosenberg/ Sest	110		131	152							
	A09.301-7	30 Jun		442	051	07-1			051		Na-L.1			رم د
32	Ute Tonahawk	1720	Rosenberg/ Best											
ŀ		,	0						1	Post of	24 ACC			

1. Use Letter to Show Performance: S - Success, P - Partial Success, F - Failure, N - None Used.

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Name	1					IMPACT		A PO	APOGEE			AIR	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
NUMBER   Column   C		₩	974			RANGE (KM)	AZ (DEG)	ALT (KM)	m C	PAY.					
Type	E.E.		DATE (UT)		PRED.		PRED.	PRED.	PRED.		RECOY. ERY1.2				101
17   17   19   19   18   19   16	٤		TIME (CT)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	_	_	ACS1.2		SUPPORT SYSTEMS	REMARKS	FERF.
Harden   1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	1		ļ				360	160				Vehicle Potential Stabilization			s
Acrobe   1024   Walker   660+   193   201   423   F   R Sources   ACS   ACS	2		0200	Sherman		73	357	161							
Aerobe         1024         Malker         660+         193         5         IR Sources         \$\infty \text{Survee}\$         \$\infty \text{Survee}\$<	7		4 Sep	Woomera			325	īგ		423		IR Sources HI Star II	ACS		S
Aberghe Lower 2         2555         Malker 680         205         423         F IR Sources         IR Sources ALS.         ALS.         Recovery Failed Account Failed Account Failed Becovery ALS.         Recovery Failed Becovery Failed Account Account Face ALS.         ACS Failed Best Account Account Account Becovery B	ţ, .		1024	Walker	+099			193					•		
Abrobee         2255         Malker         680         200         5         IR Sources         ACS.			_	Woomera				205		423			ACS, Recovery	Recovery Failed	۵.
About State         1533         Walker         207         F         Recovery         ACS Failed 9 +94 Sec., No Pointing Sec., No Po	33		2255	Walker	989			88							
Aerobee         1533         Walker         17 Oct         Freedet, WSWR         Freedet, Femoved         Door not Photometers           Nike         1120         207         120         Photometers         Femoved           Hydac         1120         205         360         190         175         10" Falling Sphere         1/2 Sec Short Burn, Some Data           409.407-1         13 Dec         WSWR         455         35         89.6         76         36           1 Cmahawk         2225         Geary         392         35         76         76         76           1 Cmahawk         1 C			_					193		423	S	IR Sources	ACS, Recovery	ACS Failed @ +94 Sec., No Pointing	u.
17 Oct   MSMR   18   19   Precede,   Protonc Lers   Procede,   P	36		1533	Walker				202			u.				
Nike         1120         120         175         10" Falling Sphere         1/2 Sec Short Burn, Some Data           A09-407-1         13 Dec         WSKR         455         80.5         360         190         775         10" Falling Sphere         1/2 Sec Short Burn, Some Data           Ute         Tomahawk         2225         Geary         392         35         89.6         76         89.6         76         89.6         10" Falling Sphere         10" Falling Sphere<			17 Oct	WSMR				119				Precede, Photometers		Door not Penoved	s
A09.407-1         13 Dec         WS/RR         455         80.5         360         190         175         10" Falling Sphere         1/2 Sec Short Burn, Some Data           Ute         10m Falling Sphere         76         76         20m Data         20m Data         20m Data           1 Cmahawk         2225         Geary         392         35         89.6         76         30m Data	37		11,20					120							
Ute Tomahawk 2225 Geary 392 35 89.6 76			13 Dec	WSWR	455		360	190		175		10" Falling Sphere		1/2 Sec Short Burn, Some Data	<u> </u>
	8		2225	Geary	392	35		89.6		76					
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1. Use Letter to Show Performance: S - Success, P - Partial Success, F - Failure, N - None Used.

I are the following and depressive their properties of the

		_																		
			TOTAL	PERF.1	s		a.		S		o.		s		s		s		v	
S LABORATORY			DEMARKS				IM Loss @ 459 Sec No 2nd Chem Sighting		Yeh. TM Loss @ 422 Sec. Sph. TM Loss	(8 513 Sec.	TM Loss @ 398 Sec No E Field Booms		IM Loss @ 428 Scc. NO Release Failed							
AIR FORCE GEOPHYSICS LABORATORY			SM3TE ~ S T GOGGLIS						Despin		Gyro Accel	uespin to 1:1	Mag Accel						Despin to 0.6	
AIA.			SAME	CATENIMENTS	Dummy Chemical, Test of Shroud Exten.	Verify Wind Weighting	Exploratory Chemical Test of Shroud	Extension Verify Wind Weighting	7" Hi Ball PCM Sphere, TMA Release		Mass Spec, E Field, Green Line Photom		No Release Photometers		Gerdian Cond.		Chilled Baffle IB-OH		Chemical Release, HI Bal	
			весоу. Еву92	ACS1,2	z	z	z	×	z	z	z	×	×	×	N	×	z	×	×	Z
	DAV.	LOAD	WT. (LBS)	S.G.	08	75	159	86	145	105.5	350	141.9	254	129.4	25	•	12	-	254	1
	APOGEE	TIME (SEC)	PRED.	ACT.								•	,	,		,				
	APO	ALT (KM)	PRED.	ACT.	234	235	179	159	192	190	157	159	961	183	111	104	119	111	220	219
		AZ (DEG)	PRED.	ACT.	134	128	134	144	141.5	161.5	149/	161.5	137.4	143	52	28	025	025	120	128
	IMPACT	RANGE (KM)	PRED.	ACT.	415	400	234	284	245	282	35	66	192	199	£	47	8.4	12	148	124
		TIME (SEC)	PRED.	ACT.	478	,	416	459 see 284 Remarks	459	421	384	396	430	437	323	320	335	325	490	445
			PLACE	SCIENTIST	KOPS	Rosenberg	ROPS	Rosenbery	WOPS	Rosenberg/ Faire	WOPS	Marcisi/ Dandekar	MOPS	Narcisi/ Dandekar	PFRR	Ulwick	PFRR	Ulwick	CRR	Rosenberg/
		1975	DATE (UT)	TIME (UT)	14 Jan	2056	15 Jan	2246	17 Jan	2243	18 Jan	0435	18 Jan	0445	26 Feb	2250	29 Feb	0010	10 Apr	0954
		ĭ	NUMBER	TYPE	A09.301-8	Ute Tomahawk	A09.105-8	Ute Tomahawk	A69.301-9	Ute Tomahawk	A10.213-1	Pajute Tomahawk	A10.301-10 18 Jan	Palute Tomanawk	A30,413-3	Astrobee D	A30.311-6	Astrobee 0	A10.302-3	Parute
	L		LINE	o Z		_		0	1	m	<del>                                     </del>	*		10	_	0		<u></u>		20

Tonahawk 19954 Faire 445 124 128 219 1. Use Letter to Show Performance: S – Success.

P – Partial Success, F – Failure, N – None Used.

					*****		1			_	AIR	AIR FORCE GEOPHYSICS LABOHALORY	SLABOHALOHY	
		110			ושנאניי		3	2000	PAY.					A
	-1	C/ET		(SEC)	KANGE (KM)	(DEG)	(KM) (SEC	(SEC)	LOAD					
LINE	NUMBER	DATE (UT)	PLACE	PRED.	PRED.	PRED.	PRED.	PRED.	WT.	RECOY.	OFFICE	SMSTSVS TOOGGIS	SHANA	TOTAL
Ŏ.	TYPE	TIME (UT)	SCIENTIST	ACT.	ACT.	ACT.	ACT.	ACT.	S.E.	ACS <sup>1,2</sup>	EAFERIMENIS	SECTION STORES		PERF.
	A10, 302-4	10 Apr	CRR	490	148	150	220	,	255	z	Chemical Release			v
σ	Pajute Tomahawk	0954:30	0954:30 Rosenberg		1			-		Z				
	A10,403-3	10 Apr	CRR	490	148	150	022	,	254	N	Mass Spect E Field	Despin to 1.9-Set for .5	Sone Boom Problem	~
2	Pajute Tomahawk	1000	Narcisi/ Smiddy	517	113	156	12.			×				
	A10.302-1	21 Apr	CRR	430	148	120	220	,	254	×	Chemical Release. E field	Despin		S
=	Paiute Tomahawk	0807	Rosenberg/ Smiddy	-		133	214	1		×				
!	A10.302-2	21 Apr	CRR	490	348	150	022	,	250	z	Chemical Release			s
2	Painte Tomahaak	0907:30	0907:30 Rosenberg		,	•	•	•	•	×				
:	A10.403-1	21 Apr	CRR	490	148	150	220	,	246	(cas)s	Mass Spect.	Despin		S
2	Paiute Iomahawk	2160	Narcisi	920	119	170	223	,		z				
:	A10.302-5	25 Apr	CRR	490	148	120	220	•	292	N	TMA & SA Release Photometers			<u>~</u>
<u> </u>	Paiute Tomahawk	0413	Rosenberg/ Good	•	ı	•	214	•	107	z				
2	A10.302-7	25 Apr	CRR	490	148	150	022	•	250	N	TMA S BA			v
2	Paiute Tomahawk	0413:30	0413:30 Rosenberg	-		145	,	-		2				
	A10.403-2	25 Apr	CRR	490	148	142	022		546	(as)s	Mass Spect.	Despin		v,
9	Pajute Tomahawk	0418	Narcisi	940	132	146	812	•	•	z				
-	Jas Letter to S	how Perfo	1. Use Letter to Show Performance: S Success, P Partial Success F Failure N None Used	uccess, ne Lhad.		2. List 1	ype of 8	scovery .	and Type	2. List Type of Recovery and Type or Brand of ACS.	of ACS.			

1. Use Letter to Show Performance: S - Success, P - Partial Success, F - Failure, N - None Used.

TIME   RANGE   ALT   TIME   SEC.   (KM)   (SEC.)   (KM)   (SEC.)   (KM)   (SEC.)   (KM)   (SEC.)   (KM)   (SEC.)   (KM)   (SEC.)   (SEC.
394 OU 555 1 880 83 357 518 246 240 - 259 -
NSMR 347 75.8 360 129 - Philbrick 634 82.5 350 128.4 - KSMR 347 82 349 129 -
rick - 98 359
3 82 341 263 2 3* 72* 068* 251 2
MSMR 348 68 351 1.32 Ulwick 355 58 356 120

Use Letter to Show Performance: S - Success,

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			PERF.	s		S		S		s		v		S		۵			
S LABORATORY			REMARKS											Recovery Failed	ment. Lost Front Half of Payload	Partial Data			
AIR FORCE GEOPHYSICS LABORATORY			SUPPORT SYSTEMS											Despin, Separation		Despin (Falled)			
AIA R			EXPERIMENTS	OH-Horizon Sensor		OH-Sun Sensor		0-Sun Sensor		OH-Horizon Sensor		Atomic O-Horizon Sensor		F(ALRC) IR Sources		Density-HI Bal			
		RECOY. ERY1,2	ACS1.2	z	z	z	z	z	z	z	×	z	Z	F(ALRC)	S(ALRC)	z	z		
200	LOAD	WT. (LBS)	<u>§</u> E	22	54	22	\$2	22	54	22	54	22	54	909	193	138	23		
3EE	TIME (SEC)	PRED.	ACT.					,				,					,		
IMPACT	ALT (KM)	PRED.	ACT.	132	124	132	521	132	124.8	132	124.5	132	126.8	288	286	187	164		
	AZ (DEG)	PRED.	ACT.	354	357	357	350	352	342	352	351	352	354	340	348	255	257	-	
	RANGE (KM)	PRED.	ACT.	68.5	19	89	59	89	58	88	68	89	70	88	82	260	7.5		<u> </u>
	TIME (SEC)	PAED.	ACT.	348		348	,	348	,	348		348				422 2	<del>-</del>		
		PLACE	SCIENTIST	WSW8	Ulwick	WSWR	Ulwick	WSWR	Ulwick	MSMR	Ulwick	NSM	Ulwick	WSMR	Walker	MTR 4	Faire		
	1975	DATE (UT)	TIME (UT)	2 Dec	1350	2 Dec	1700	3 Dec	0035	3 Dec	0059	3 Dec	0500	4 Dec	0322	12 Dec	0209		
	16	NUMBER	TYPE	A30.311-5	Astrobee D		Astrobee D	A30.413-5	Astrobee D	A30.205-7	Astrobee 0	A30.413-4	Astrobee D	-	Aerobee 350	A09.406-1	Ute Tomahawk		
		LINE	Š.		52		92		23		8			,		7			

1. Use Letter to Show Performance: S.- Success, P.- Partial Success, F.- Failure, N.- None Used.

1976

NUMBER TYPE

#### TOTAL PERF. Grand Forks Imp. Data No Radar Track Zero Delay Ignitor AIR FORCE GEOPHYSICS LABORATORY REMARKS Despin OK to .125 rps SUPPORT SYSTEMS Chem. Release, Mesosphere Dynamics Neutral Mass Spect. Composition, Ozone, UV, X-ray EXPERIMENTS TIME RANGE AZ ALT TIME LOAD (SEC) PRED. PRED. PRED. PRED. (LBS) ERY1.2 Ϋ́F S(SVC) z z z z 180 354 126 262 8 199 632 115 124 130 248 247 11 53 2 2 9 357 13 274 112 65 182 157 796 361 482 488 362 SCIENTIST 2234 Philbrick PLACE 2245 Vickery Black 1V 0142 Harvey Paiute 0118 Weeks Iomahawk A09.402-2 23 Jan WOPS A08.608-1 23 Jan | NOPS A10.504-1 22 Feb PFRR A16.501-1 20 Jan CRR DATE (UT) TIME (UT)

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S

Parachute Worked		Mag. Storm S		No 2nd Stage F		Despin		
xux		10" Falling Sphere		Mass Spec.		S(SDC) Mass. Spec.		of ACS.
P(HI) XUV	N	N	Z	(soc)	•	s(spc)	z	2. List Type of Recovery and Type or Brand of ACS.
302	131	1	-	242	142	242	142	and Type
_		•				•	•	Recovery
222	122	٠	209	200	19	220	218	Type of
	359		,	163	156	99	112	2. List
_	80	•	•	99	s	160	190	
056	056		·	420	130	•	<b>+</b> 006	JCORKS.
WSMR	Heroux	PFRR	Faire/ Weeks	CRR	Marcisi	CRR	Narcisi	mence: S - S
24 Feb	1920	3 Mar	1744	26 Apr	0547	! May	0435	ow Perfor
A04.305-1 24 Feb WSMR	Aerobee 170	A10.507-1 3 Mar PFRR	Pajute Tomahawk	A10.403-4 26 Apr	Pajute Tomahawk	A10.001-2 1 May	Paiute Tomahawk	1. Use Letter to Show Performence: S - Success, B - Barriel Success E - Esiture N - None Head
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N1ke Torahawk

Ute Tomahawk

TIME (SEC.) PRED	IMPACT	IMPACT	IMPACT	IMPACT		L	₹	١ŏ	APOGEE	2		AIA	AIR FORCE GEOPHYSICS LABORATORY	S LABORATORY	
Mar.   RECQY.   LGS	(DEG) (KM)	(SEC) (KM) (DEG) (KM)	RANGE AZ ALT	RANGE AZ ALT	(DEG) (KM)	ALT (KM)		-	TIME SEC!	LOAD					
125	PRED. PRED.	PLACE PRED. PRED. PRED.	PRED. PRED. PRED. PRED.	PRED. PRED. PRED.	PRED. PRED.	PRED.		- 1	PRED.	WT. (LBS)	RECOY.	0.141.010.0	SHETSYS TOOGUS	3A04M30	TOTAL
267 S(WI) Solar XUV & UV  125 N  738 N IR Earth Limbs & Despin, but Classified Separation Sensor Picked Up  - N IO" Falling Sphere C-Band Bccon in Gamso Supplied Sphere S	TYPE TIME SCIENTIST ACT. ACT. ACT. ACT.	SCIENTIST ACT. ACT. ACT. ACT.	ACT. ACT. ACT. ACT.	ACT. ACT. ACT.	ACT. ACT.	ACT.	-		ACT.	<u>چ</u> و	ACS1,2		Serior Storios	nemanno	PERF.
738 N IR Earth Limbs & Despin, but Classified Separation but Classified but Classified Sensor Picked up to Falling Sphere C-Band Becon in Ignition. Sanso Supplied Sphere C-Eand Becon in Sanso Supplied Sphere Sphere Sphere Sphere Sphere Sphere Supplied Sphere Sp	A03.410-1 18 May WSMR 185	WSMR			•		185			267	S(WI)	Solar XUV & UV			S
- 738 N IR Earth Limbs & Despin, but Classified Separation but Classified Separation Picked Up to Classified Sensor Picked Up to Classified Sensor Picked Up to Classified Sphere C-Band Becon in No Second Stage Sphere C-Band Becon in Samso Supplied H-Hydac Sphere C-Band Becon in Samso Supplied N-Hydac Sphere S	Aerobee 1700 Heroux 1005 80 - 190	Heroux 1005 80 -	- 80 5001	- 08	,		190	<b></b>	223	125	z				
- 208.8 S(ALRC)	A35.191-4 3 Aug WSMR 86 344.4 269.1	WSMR 86 344.4	86 344.4	344.4	344.4	_	269.	╘	,	738	×		Despin, Separation	No Recovery System, but Classified	s
N 10" Falling Sphere C-Band Becon in Ingaition, Samso Supplied - Ingain Sphere Sphere Supplied A-Hydac & Im Inc. Falling Sphere C-Band Becon in Samso Supplied Sphere C-Band Becon in Samso Supplied Sphere Sphe	Aerobee 1916 Schurin/ 483 113.1 352.4 256.7 350	Schurin/ 483 113.1 352.4	483 113.1 352.4	113.1 352.4	352.4		256.			208.8	S(ALRC)		•	Sensor Picked Up	
Supp led N-Hydac  - N 10" Falling Sphere C-6and Becon in Samso Supplied Sphere	A11.605 21 Aug KMR			•	•				•		z	10" Falling Sphere	C-Band Becon in Sphere	No Second Stage	le.
- N 10" Falling Sphere C-Band Becon in Samso Supplied Sphere Sphere Sphere SDC	M-Hydac 0340 Faire 14.6	Faire			•		14.6	-	,		z			Supplied N-Hydac & IM Thru SDC	
N -	A11.408-1 31 Aug KAR			,	•		,	<b></b>		•	×	10" Falling Sphere	C-Sand Becon in Sphere	Samso Supplied N-Hydac & TM thru	v
	N-Hydac 0340 Faire 188	Faire			•		188			,	×			SDC	
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Use Letter to Show Performance: S – Success, P – Partial Success, F – Faiture, N – None Used.